



Dept. Of Zoology
Dinakrushna College, Jaleswar, Balasore

Question Bank — Semester 1, Paper: Core-1, Major-1
INVERTEBRATES: Protista to Echinodermata

Based on NEP 2020 Syllabus

Question Pattern Followed (based on previous year papers)

Section	Question Type	Marks
A	Fill in the Blanks	1 mark each (10 to be attempted)
B	Short Notes	2 marks each (9 to be attempted)
C	Write Notes / Answer (any eight)	5 marks each
D	Long / Essay type Answer (any four)	8 marks each

Unit 1: Protista to Cnidaria and Minor Phylum Ctenophora

Syllabus scope: General characteristics and classification up to classes. Locomotion, nutrition and reproduction in Protista; life cycle and pathogenicity of *Plasmodium vivax*; canal system and metagenesis in *Obelia*; polymorphism in Cnidaria; corals and coral reefs; evolutionary significance of Ctenophora.

SECTION A — Fill in the Blanks

36 questions · 1 mark each

1. Which class of phylum Protozoa has tentacles for food capturing? (Ans: Suctoria) [2025]
2. Protozoa consuming solid food, similar to animals, is known as _____ nutrition. (Ans: Holozoic) [2025]
3. The polyps of stony corals sit in cup-shaped depressions in the skeleton known as _____. (Ans: Corallites) [2025]
4. Mode of nutrition in Amoeba is _____. (Ans: Holozoic) [2024]
5. Alternation of generation as seen in *Obelia* is termed as _____. (Ans: Metagenesis) [2024]
6. Opening of the radial canal into the spongocoel is called _____. (Ans: Apopyle) [2024]
7. Rhagon type of canal system is found in _____. (Ans: Sponges (Leuconoid sponges)) [2024]
8. Phylum Protozoa is classified into major classes mainly on the basis of _____ organelles.
9. Locomotion in Amoeba is brought about by _____.
10. The main function of the contractile vacuole in Protozoa is _____.
11. Encystment in Protozoa helps the organism to withstand unfavourable _____ conditions.
12. Binary fission in Protozoa is a type of _____ reproduction.
13. Conjugation is a type of sexual process found in the class _____ of Protozoa.
14. *Plasmodium vivax* causes _____ type of malaria.
15. The vector responsible for transmission of *Plasmodium vivax* is the female _____ mosquito.
16. The exo-erythrocytic cycle of *Plasmodium* occurs in the _____ of the human host.
17. The sexual cycle (sporogony) of *Plasmodium* occurs in the body of the _____.
18. Gametocytes of *Plasmodium* are formed in the _____ of the human host.
19. Sporozoites of *Plasmodium* are formed and stored in the _____ of the mosquito.
20. *Obelia* shows a _____ (solitary/colonial) form of organisation.
21. The reproductive polyp of *Obelia* is known as _____.
22. The feeding polyp of *Obelia* is called _____.
23. The medusa of *Obelia* reproduces by the _____ method.
24. The simplest type of canal system found in sponges is the _____ type.
25. The most complex type of canal system in sponges is the _____ type.
26. The layer of flagellated collar cells lining the spongocoel in sponges is called _____.
27. Spicules in sponges provide _____ support to the body.
28. Phylum Cnidaria exhibits _____ symmetry.
29. The stinging cells present in Cnidaria are called _____.
30. Polymorphism in Cnidaria is best exhibited by the order _____.

31. Coral reefs are mainly built up by _____ (hermatypic/ahermatypic) corals.
32. The Great Barrier Reef of Australia is an example of _____ type of coral reef.
33. An atoll is a ring-shaped coral reef that develops _____ a central lagoon.
34. Ctenophores move with the help of eight rows of ciliary _____ plates.
35. Ctenophora are commonly known as _____.
36. Unlike Cnidaria, Ctenophora exhibit _____ symmetry.

SECTION B — Short Notes

31 questions · 2 marks each

1. General characteristics of protozoa [2025]
2. Types of coral reefs [2025]
3. Evolutionary significance of Ctenophora [2025]
4. Binary fission [2024]
5. Blastostyle [2024]
6. Uses of coral reefs [2024]
7. Locomotory organelles in Protozoa
8. Conjugation in Ciliates
9. Contractile vacuole and osmoregulation
10. Encystment and excystment in Protozoa
11. Pseudopodia and their types
12. Classification of Protozoa up to classes
13. Types of nutrition in Protozoa
14. Life cycle stages of Plasmodium vivax
15. Exo-erythrocytic schizogony
16. Erythrocytic schizogony
17. Gametogony in Plasmodium
18. Sporogony in Plasmodium
19. Ascon type canal system
20. Sycon type canal system
21. Leucon type canal system
22. Spicules and skeleton in sponges
23. Polyp and medusa forms in Cnidaria
24. Metagenesis in Obelia
25. Nematocysts and their types
26. Structure of a coral polyp
27. Zooxanthellae and their symbiosis with corals
28. Comb plates in Ctenophora
29. Bioluminescence in Ctenophora
30. Differences between Cnidaria and Ctenophora

31. Coral bleaching and its causes

SECTION C — Write Notes / Answer (5 Marks)

30 questions · 5 marks each

1. Asexual life cycle of *Plasmodium vivax* [2025]
2. Canal system in sponges [2025]
3. Polymorphism in Cnidaria [2025]
4. Flagella in protozoa [2024]
5. Structure of coral skeleton [2024]
6. Classification of phylum Coelenterata (Cnidaria) [2024]
7. Locomotion in Protozoa
8. Asexual and sexual reproduction in Protozoa
9. Pathogenicity of *Plasmodium vivax*
10. Classification of Protozoa up to classes
11. Nutrition and its types in Protozoa
12. Structure and function of contractile vacuole
13. Types of canal system in sponges (Ascon, Sycon, Leucon)
14. Skeleton in Porifera
15. Reproduction in sponges
16. General characteristics of phylum Porifera
17. Metagenesis and its biological significance in *Obelia*
18. Structure of the *Obelia* colony
19. Structural differences between polyp and medusa
20. Structure and types of nematocysts
21. Formation of coral reefs
22. Fringing, barrier and atoll reefs
23. Symbiotic relationship between corals and zooxanthellae
24. Economic and ecological importance of coral reefs
25. Evolutionary significance of Ctenophora
26. General characteristics of phylum Ctenophora
27. Comb plates and locomotion in Ctenophora
28. Bioluminescence and its significance in marine invertebrates
29. Threats to coral reefs including coral bleaching
30. Comparative account of Porifera and Cnidaria

SECTION D — Long Answer / Essay Type (8 Marks)

13 questions · 8 marks each

1. Give a detailed account of metagenesis in Obelia and its biological significance. [2025]
2. Give an illustrated account of the life cycle of Plasmodium vivax. [2025 / 2024]
3. Discuss the different types of reproduction in phylum Protozoa. [2025]
4. Write an essay on polymorphism in Cnidaria. [2025 / 2024]
5. Describe general characteristics and classification of phylum Protozoa up to classes.
6. Discuss in detail the pathogenicity and life cycle of Plasmodium vivax in humans and mosquitoes.
7. Describe the canal system in sponges with suitable diagrams and its evolutionary trend.
8. Give a detailed account of the classification of phylum Cnidaria up to classes.
9. Describe the structure, types and formation of coral reefs.
10. Discuss the evolutionary significance of Ctenophora in relation to Cnidaria and Platyhelminthes.
11. Give a detailed account of the general characteristics of phylum Cnidaria.
12. Describe the polyp and medusa forms of Cnidaria and their significance in the life cycle.
13. Discuss the role of coral reefs in marine ecosystems and the threats they face today.

Unit 2: Platyhelminthes and Nemathelminthes

Syllabus scope: General characteristics and classification up to classes. Life cycle and pathogenicity of *Fasciola hepatica*; life cycle and pathogenicity of *Ascaris lumbricoides*; parasitic adaptations in helminthes.

SECTION A — Fill in the Blanks

30 questions · 1 mark each

1. Platyhelminthes belonging to class _____ are primarily ectoparasites that live on the external surfaces of fish. (Ans: *Monogenea (Trematoda)*) [2025]
2. The second stage (rhabditiform) larva of *Ascaris lumbricoides* is capable of infecting the host. [2025]
3. Primary host of *Fasciola* is _____. (Ans: *Sheep/Cattle (herbivorous mammals)*) [2024]
4. Platyhelminthes exhibit _____ symmetry.
5. The body of Platyhelminthes is _____ (acoelomate/coelomate).
6. The excretory units found in Platyhelminthes are called _____.
7. *Fasciola hepatica* commonly infects the _____ of sheep and cattle.
8. The intermediate host of *Fasciola hepatica* is the snail _____.
9. The larval stage of *Fasciola* that penetrates the snail host is called _____.
10. The cercaria of *Fasciola* encysts on vegetation to form _____.
11. Tapeworms belong to class _____ of Platyhelminthes.
12. The scolex of a tapeworm bears _____ for attachment to the host gut.
13. Each segment of a tapeworm body is called a _____.
14. Phylum Nemathelminthes possess a body cavity known as _____.
15. The body of *Ascaris* is covered externally by a resistant, non-cellular layer called _____.
16. *Ascaris lumbricoides* is commonly known as the _____ worm.
17. The adult *Ascaris* lives in the _____ of the human host.
18. Male *Ascaris* can be distinguished from the female by the presence of _____ at the posterior end.
19. Microfilariae are the larval forms of the filarial worm _____.
20. Elephantiasis in humans is caused by the filarial worm _____.
21. *Wuchereria bancrofti* is transmitted by the _____ mosquito.
22. Hookworm infects humans mainly through _____ of the skin.
23. *Ancylostoma duodenale* is commonly called the _____ worm.
24. *Trichinella spiralis* causes a disease known as _____.
25. Nematodes typically possess an elongated, _____ shaped body.
26. The excretory system of *Ascaris* is of the _____ type.
27. Parasitic helminths generally show a reduced _____ system due to their mode of life.
28. The cuticle in Nemathelminthes protects the parasite from _____ enzymes of the host.
29. Free-living Platyhelminthes such as *Planaria* show remarkable powers of _____.
30. Class _____ of Platyhelminthes is mostly free-living and includes *Planaria*.

SECTION B — Short Notes

30 questions · 2 marks each

1. Microfilariae [2024]
2. Nematodiasis [2024]
3. General characteristics of Platyhelminthes
4. Classification of Platyhelminthes up to classes
5. Flame cell system in Platyhelminthes
6. Larval stages in the life cycle of *Fasciola hepatica*
7. Redia and cercaria larvae
8. Metacercaria
9. Scolex and proglottids of tapeworm
10. Parasitic adaptations in Platyhelminthes
11. General characteristics of Nematelminthes
12. Classification of Nematelminthes up to classes
13. Cuticle and body wall of *Ascaris*
14. Reproductive system of *Ascaris*
15. Life cycle of *Ascaris lumbricoides*
16. Pathogenicity of *Ascaris lumbricoides*
17. Elephantiasis
18. *Wuchereria bancrofti*
19. Hookworm disease
20. *Trichinella spiralis* and trichinosis
21. Pseudocoelom and its significance
22. Sexual dimorphism in *Ascaris*
23. Excretory system in Nematelminthes
24. Parasitic adaptations in Nematelminthes
25. Egg and larval forms of *Ascaris*
26. Medical importance of helminth parasites
27. Difference between Platyhelminthes and Nematelminthes
28. Significance of bilateral symmetry in Platyhelminthes
29. Osmoregulation in Platyhelminthes
30. Locomotion in free-living flatworms

SECTION C — Write Notes / Answer (5 Marks)

30 questions · 5 marks each

1. Describe migration of larvae of *Ascaris* through the human host. [2024]
2. Morphological adaptations of helminth parasites. [2024]
3. General characteristics and classification of Platyhelminthes up to classes.
4. General characteristics and classification of Nematelminthes up to classes.

5. Pathogenicity of *Fasciola hepatica*.
6. Life cycle of tapeworm (*Taenia*).
7. Structure and function of the scolex.
8. Reproductive biology of *Ascaris lumbricoides*.
9. Life cycle of *Wuchereria bancrofti*.
10. Pathogenicity and clinical symptoms of filariasis.
11. Life cycle of hookworm.
12. Parasitic adaptations in Nematelminthes.
13. Body wall and cuticle structure of *Ascaris*.
14. Excretory system in parasitic helminths.
15. Nervous system in Platyhelminthes.
16. Classification of class Trematoda.
17. Classification of class Cestoda.
18. Classification of phylum Nematoda.
19. Comparison of free-living and parasitic Platyhelminthes.
20. Larval forms in Trematoda.
21. Diagnosis and prevention of ascariasis.
22. Diagnosis and prevention of fasciolosis.
23. Host-parasite relationship in helminths.
24. Regeneration in Planaria.
25. General body organisation in Nematelminthes.
26. Reproductive strategies in parasitic helminths.
27. Adaptive significance of pseudocoelom.
28. Trichinosis: cause, symptoms and prevention.
29. Comparative account of classification of Platyhelminthes and Nematelminthes.
30. Intermediate hosts and their role in helminth life cycles.

SECTION D — Long Answer / Essay Type (8 Marks)

12 questions · 8 marks each

1. Give an illustrated account of the life cycle of *Fasciola hepatica*. [2025]
2. Discuss the pathogenic effects of adult *Ascaris lumbricoides*. [2025]
3. Describe general characteristics of phylum Nematelminthes and classify it up to classes. [2025 / 2024]
4. Discuss the parasitic adaptations seen in helminths. [2025]
5. Give a detailed account of general characteristics of Platyhelminthes and classify up to classes. [2025]
6. Discuss in detail the life cycle of *Ascaris lumbricoides* along with its pathogenicity.
7. Give a detailed account of classification of Platyhelminthes up to classes with suitable examples.
8. Describe the general characteristics and classification of Trematoda, Cestoda and Turbellaria.
9. Discuss the various parasitic adaptations seen in helminths with suitable examples.
10. Give an illustrated account of the life cycle of *Wuchereria bancrofti* and describe filariasis.

11. Discuss the morphology, life cycle and pathogenicity of hookworm.
12. Describe the general organisation and classification of phylum Nematelminthes up to classes with examples.

D.K. COLLEGE

Unit 3: Annelida, Arthropoda and Onychophora

Syllabus scope: General characteristics and classification up to classes. Evolution of coelom and metamerism; excretion in Annelida; vision and respiration in Arthropoda; metamorphosis in Insects; social life in bees; Onychophora - general characteristics and evolutionary significance.

SECTION A — Fill in the Blanks

32 questions · 1 mark each

1. Who proposed the 'Locomotion Theory' to explain the origin of metamerism in annelids in 1964? (Ans: J. E. Clark) [2025]
2. The respiratory pigment of Arthropods is _____. (Ans: Haemocyanin) [2025]
3. _____ are the moveable, amoeboid, dark pigment cells which form a sheath. (Ans: Chromatophores) [2025]
4. Earthworm belongs to class _____ of Annelida. (Ans: Oligochaeta) [2024]
5. The larval form of Annelida is _____. (Ans: Trochophore) [2024]
6. Annelida exhibit _____ type of segmentation.
7. The excretory organs in Annelida are called _____.
8. Nephridia in the earthworm are of the _____ type.
9. Setae in the earthworm assist in _____.
10. The coelom in Annelida is lined by _____.
11. Leeches belong to class _____ of Annelida.
12. Polychaetes possess lateral appendages called _____.
13. The clitellum in earthworm is involved in the formation of _____.
14. The hard external body covering of Arthropoda is called _____.
15. Moulting (shedding of cuticle) in Arthropods is known as _____.
16. Compound eyes in Arthropods are made up of individual units called _____.
17. Apposition type of image is typically formed in _____ (diurnal/nocturnal) arthropods.
18. Superposition type of image is typically formed in _____ (diurnal/nocturnal) arthropods.
19. Respiration in insects occurs mainly through a network of tubes called _____.
20. Book lungs are the respiratory organs found in _____.
21. The gills used for respiration in aquatic arthropods such as prawn are called _____.
22. Metamorphosis in which the larva gradually resembles the adult is called _____ metamorphosis.
23. Metamorphosis involving a distinct pupal stage is called _____ metamorphosis.
24. The queen bee is the only _____ female in a honey bee colony.
25. Worker bees in a honey bee colony are _____ females.
26. Male bees in a honey bee colony are called _____.
27. The dance performed by honey bees to communicate the direction of a food source is called the _____ dance.
28. Onychophora is commonly represented by the genus _____.
29. Onychophora possess soft, unjointed, paired appendages called _____.
30. Onychophora are considered an evolutionary link between phylum _____ and phylum _____.

31. The respiratory organs of Onychophora are _____.

32. Onychophora excrete through segmentally arranged organs called _____.

SECTION B — Short Notes

30 questions · 2 marks each

1. Metamerism [2024]
2. Book gills [2024]
3. Evolution of coelom
4. Types of setae in Annelida
5. Nephridia and their types in Annelida
6. Clitellum and cocoon formation
7. Classification of Annelida up to classes
8. Parapodia in Polychaetes
9. Regeneration in Annelida
10. Structure of the compound eye
11. Apposition and superposition images
12. Tracheal system in insects
13. Book lungs in Arachnida
14. Types of metamorphosis in insects
15. Nuptial flight in honey bees
16. Social organisation in a honey bee colony
17. Castes in honey bees
18. Communication (dance language) in honey bees
19. General characteristics of Onychophora
20. Evolutionary significance of Onychophora
21. Peripatus as a connecting link
22. Excretory organs in Arthropoda
23. Malpighian tubules
24. Vision in Arthropoda
25. Respiration in Crustacea
26. Classification of Arthropoda up to classes
27. Metameric segmentation and its biological significance
28. Theories on the origin of coelom
29. Chromatophores in Onychophora
30. The Locomotion Theory of metamerism

SECTION C — Write Notes / Answer (5 Marks)

30 questions · 5 marks each

1. Metanephridia [2024]
2. Tracheal respiration in Arthropods [2024]
3. Nuptial flight in honey bees [2025]
4. General characteristics of Onychophora [2025]
5. Theories on evolution of coelom and their significance
6. Origin of metamerism - the Locomotion Theory
7. Excretion in Annelida
8. Classification of Annelida up to classes
9. Structure and function of nephridia in earthworm
10. Vision in Arthropods - structure of the compound eye
11. Apposition and superposition image formation
12. Respiration in Arthropoda (tracheal, book lungs, gills)
13. Metamorphosis in insects - types and significance
14. Social life in honey bees
15. Caste system and division of labour in honey bees
16. General characteristics and classification of Arthropoda up to classes
17. General characteristics of Onychophora
18. Evolutionary significance of Onychophora
19. Chromatophores and their function in Onychophora
20. Excretory organs in Onychophora
21. Parapodia and locomotion in Polychaetes
22. Segmental organisation and metamerism in Annelida
23. Cocoon formation in earthworm
24. Malpighian tubules as excretory organs in insects
25. Book gills in Arthropoda
26. Setae and their role in locomotion in earthworm
27. Sensory organs in Arthropoda
28. Moulting (ecdysis) in Arthropods
29. Classification of class Insecta
30. Respiratory adaptations across the classes of Arthropoda

SECTION D — Long Answer / Essay Type (8 Marks)

12 questions · 8 marks each

1. Write an essay on modes of excretion in Annelida. [2025]
2. Discuss evolution of coelom. [2025]
3. Describe metamorphosis in insects. [2025]
4. Describe social life in Honey Bee. [2025 / 2024]

5. Describe general characters of Onychophora. **[2025]**
6. Discuss the theories on origin of metamerism and evolution of coelom in Annelida.
7. Give a detailed account of classification of Annelida up to classes with examples.
8. Describe vision and respiration in Arthropoda in detail.
9. Discuss general characteristics and classification of Arthropoda up to classes.
10. Describe the evolutionary significance and general characteristics of Onychophora in detail.
11. Discuss metamorphosis and its types in insects with suitable examples.
12. Give a detailed account of the social organisation and communication system in honey bees.

Unit 4: Mollusca and Echinodermata

Syllabus scope: General characteristics and classification up to classes. Respiration in Mollusca; torsion and detorsion in Gastropoda; evolutionary significance of trochophore larva; water-vascular system in Echinoderms; larval forms in Echinodermata.

SECTION A — Fill in the Blanks

30 questions · 1 mark each

1. The shell of Mollusca is composed of _____ protein. (Ans: Conchiolin) [2025]
2. Which class of phylum Echinodermata has a specialised masticatory apparatus called Aristotle's Lantern, used for scraping and masticating algae from rocks? (Ans: Echinoidea) [2025]
3. In the star fish, the water vascular system is derived from _____. (Ans: Coelom) [2024]
4. Aquatic respiration in molluscs is performed by _____. (Ans: Ctenidia (gills)) [2024]
5. Mollusca exhibit _____ symmetry, though modified in some gastropods.
6. The muscular foot of Mollusca is chiefly used for _____.
7. The mantle in Mollusca secretes the _____.
8. Torsion in Gastropoda results in a _____ degree twisting of the visceral mass.
9. Detorsion is the partial or complete reversal of _____ in some gastropods.
10. The rasping organ used for feeding in most molluscs is called the _____.
11. Cephalopods possess a _____ type of circulatory system.
12. The shell of class Bivalvia consists of _____ valves.
13. Pearl formation in oysters occurs due to deposition of _____ around an irritant.
14. The ciliated larval stage of Mollusca is called the _____ larva.
15. The trochophore larva is also characteristically found in phylum _____.
16. Adult Echinodermata exhibit _____ symmetry.
17. The larvae of Echinodermata exhibit _____ symmetry.
18. The water vascular system of the starfish opens to the exterior through the _____.
19. Tube feet in Echinoderms mainly function in _____.
20. The endoskeleton of Echinoderms is composed of calcareous _____.
21. The madreporite in starfish acts as a _____ for the water vascular system.
22. The larval form of class Asteroidea is called _____.
23. The larval form of class Echinoidea is called _____.
24. The larval form of class Holothuroidea is called _____.
25. Regeneration is remarkably well developed in the class _____ of Echinodermata.
26. Class _____ of Echinodermata includes the brittle stars.
27. Class _____ of Echinodermata includes the sea cucumbers.
28. Pedicellariae are found on the body surface of class _____ of Echinodermata.
29. Class Cephalopoda of Mollusca includes animals such as _____.
30. Class _____ of Mollusca includes chitons (with a shell of eight plates).

SECTION B — Short Notes

30 questions · 2 marks each

1. Torsion in Gastropoda [2025]
2. Detorsion [2024]
3. Auricularia larva [2024]
4. General characteristics of Mollusca
5. Classification of Mollusca up to classes
6. Ctenidial respiration in Mollusca
7. Radula and its function
8. Foot and its modifications in Mollusca
9. Shell structure in Mollusca
10. Pearl formation
11. Biological significance of torsion
12. Adaptive significance of detorsion
13. Trochophore larva and its significance
14. Veliger larva
15. General characteristics of Echinodermata
16. Classification of Echinodermata up to classes
17. General plan of the water vascular system
18. Madreporite and its functions
19. Tube feet and locomotion in Echinodermata
20. Pedicellariae and their function
21. Aristotle's lantern
22. Bipinnaria and Brachiolaria larvae
23. Pluteus larva
24. Regeneration in Echinodermata
25. Skeleton in Echinodermata
26. Torsion versus detorsion - a comparison
27. Evolutionary significance of trochophore larva
28. Special features of class Cephalopoda
29. Special features of class Bivalvia
30. Class Crinoidea - salient features

SECTION C — Write Notes / Answer (5 Marks)

30 questions · 5 marks each

1. Evolutionary significance of trochophore larva [2025]
2. Ctenidial respiration in Mollusca [2025]
3. Larval stages in class Asteroidea [2025]
4. Describe Madreporite and its functions. [2024]

5. General characteristics and classification of Mollusca up to classes
6. Torsion in Gastropoda - process and significance
7. Detorsion and its adaptive value
8. Structure and function of the radula
9. Respiration across the classes of Mollusca
10. Diversity of shell structure in Mollusca
11. General characteristics and classification of Echinodermata up to classes
12. Structure and mechanism of the water vascular system
13. Tube feet - structure and function
14. Aristotle's lantern - structure and function
15. Larval forms across the classes of Echinodermata
16. Regeneration and autotomy in Echinodermata
17. Pedicellariae - types and function
18. Comparative account of larval forms in Mollusca and Annelida
19. Bipinnaria and Brachiolaria larvae
20. Pluteus larva
21. Skeletal system of Echinoderms
22. Economic importance of Mollusca
23. Economic and ecological importance of Echinodermata
24. Circulatory system in Mollusca
25. Nervous system in Gastropoda
26. Salient features of class Scaphopoda
27. Salient features of class Polyplacophora
28. Salient features of class Crinoidea
29. Salient features of class Ophiuroidea
30. Comparative account of torsion in different gastropod groups

SECTION D — Long Answer / Essay Type (8 Marks)

9 questions · 8 marks each

1. Give a detailed account of water-vascular system in Echinoderms. [2025]
2. Describe different larval forms of Echinodermata. [2024]
3. Discuss general characteristics and classification of Mollusca up to classes with examples.
4. Give a detailed account of torsion and detorsion in Gastropoda.
5. Discuss respiration and its adaptations across the classes of Mollusca.
6. Discuss general characteristics and classification of Echinodermata up to classes with examples.
7. Give a detailed account of larval forms in Echinodermata and their evolutionary significance.
8. Discuss the structure, mechanism and functions of the water vascular system in Echinoderms.
9. Give an account of the evolutionary significance of the trochophore larva in Mollusca and Annelida.