

Yashwantrao Chavan College of Science, Karad

B.Sc. Part I Semester I

Paper- I (Animal diversity of Invertebrates)

Question Bank

Multiple choice questions

1. What is the largest phylum in the animal kingdom?
a. Arthropoda b) Mollusca c) Porifera d) Cnidaria
2. Which invertebrate phylum is characterized by animals with radial symmetry?
a. Arthropoda b) Mollusca c) Cnidaria d) Annelida
3. The exoskeleton of arthropods is made up of:
a. Calcium carbonate b) Chitin c) Silica d) Keratin
4. In which phylum do you find animals with jointed appendages?
a. Mollusca b) Porifera c) Arthropoda d) Annelida
5. Class.....belongs to phylum annelida.
a. Hirudinea b) Crustacea c) Insecta d) Gasrtopoda
6. In which platyhelminthes , mouth and alimentary canal are completely absent.
a. Liverfluke b) Planaria c) Tapeworm d) convoluta
7. The anterior end of tapeworm is called
a. Mouth b) Neck c) Scolex d) Proglottid
8. The water vascular system is a characteristic feature of which phylum?
a) Echinodermata b) Platyhelminthes c) Nematoda d) Rotifera
9. Which invertebrate phylum includes animals with a mantle and a muscular foot?
a) Annelida b) Mollusca c) Nematoda d) Cnidaria
10. The gastrovascular cavity is a characteristic feature of:
a) Annelida b) Cnidaria c) Platyhelminthes d) Arthropoda
11. Which invertebrate phylum includes animals with a radula?
a) Cnidaria b) Arthropoda c) Mollusca d) Porifera

12. Leeches belong to which phylum?
a) Annelida b) Platyhelminthes c) Nematoda d) Arthropoda
13. Which phylum includes animals with a water vascular system and tube feet?
a) Mollusca b) Annelida c) Echinodermata d) Nematoda
14. Insects, spiders, and crustaceans belong to which subphylum?
a) Myriapoda b) Chelicerata c) Hexapoda d) Crustacea
15. The phylum Porifera is characterized by:
a) Segmentation b) Radial symmetry
c) Pores and a porous body structure d) Jointed appendages
16. Which invertebrate phylum includes animals with a closed circulatory system?
a. Mollusca b) Nematoda c) Arthropoda d) Annelida
17. Total number of moults in life cycle of *Ascaris* are.....
a. 4 b) 3 c) 5 d) 2
18. Which one amongst the following is commonly named as “Grand old man of Intestine”?
a. Monocystis b) *Giardia lamblia* c) *Trypanosoma* d) *Paramoecium*
19. Which amongst the following organism have siliceous skeleton over plasma membrane?
a. Diatom b) *Paramoecium* c) *Amoeba* d) *Euglena*
20. One of the following is a flagellated protist
a. *Euglena* b) *Paramoecium* c) *Amoeba* d) diatom
21. Which phylum includes animals with a notochord and a dorsal nerve cord?
a) Platyhelminthes b) Chordata c) Arthropoda d) Nematoda
22. The excretory organs in insects are called:
a) Nephridia b) Malpighian tubules c) Flame cells d) Coelomocytes
23. What is the primary function of the coelom in animals?
a) Support and protection b) Digestion
c) Circulation of nutrients d) Fluid-filled cavity for organ movement
24. Which invertebrate phylum includes animals with stinging cells (cnidocytes)?
a) Platyhelminthes b) Nematoda
c) Cnidaria d) Annelida

25. The larval stage of a cnidarian is called:
- a) Planula b) Trochophore c) Nauplius d) Larva
26. Which invertebrate phylum includes animals with a complete digestive system and a well-developed coelom?
- a) Nematoda b) Platyhelminthes c) Annelida d) Mollusca
27. The phylum Nematoda is characterized by:
- a) Segmentation b) Roundworms with a pseudocoelom
 - c) Radial symmetry d) A closed circulatory system
28. Which invertebrate phylum includes animals with spicules and a porous body structure?
- a) Cnidaria b) Porifera c) Annelida d) Platyhelminthes
29. The phylum Echinodermata includes animals such as:
- a) Snails and slugs b) Starfish and sea urchins
 - c) Crabs and lobsters d) Earthworms and leeches
30. In which invertebrate phylum do you find animals with a scolex and proglottids?
- a) Annelida b) Platyhelminthes c) Nematoda d) Mollusca
31. The phylum Ctenophora is characterized by:
- a) Presence of comb-like cilia b) Radial symmetry
 - c) A segmented body d) Jointed appendages
32. Which invertebrate phylum includes animals with a jointed exoskeleton and molting?
- a) Annelida b) Mollusca c) Arthropoda d) Nematoda
33. The class Gastropoda includes animals with:
- a) Two shells hinged together
 - b) A single, spiraled shell or no shell
 - c) A hard, calcareous exoskeleton
 - d) Jointed appendages
34. Which invertebrate phylum includes animals with a closed, circulatory system and a beak-like structure?
- a) Mollusca b) Annelida c) Arthropoda d) Cephalopoda
35. The phylum Platyhelminthes includes animals commonly known as:
- a) Flatworms b) Roundworms
 - c) Segmented worms d) Velvet worms

36. Which invertebrate phylum includes animals with a radula and a muscular foot?
a) Mollusca b) Annelida c) Nematoda d) Cnidaria.
37. In which invertebrate phylum do you find animals with a radula, tentacles, and a mantle?
a) Annelida b) Mollusca c) Nematoda d) Platyhelminthes
38. Which invertebrate phylum includes animals with a soft, unsegmented body and a water vascular system?
a) Platyhelminthes b) Nematoda c) Echinodermata d) Annelida
39. The anterior end of tapeworm is called
a. Mouth b) Neck c) Scolex d) Proglottid
40. Scolex of tapeworm has
a. Mouth & Hooks b) Mouth & Suckers c) Only Suckers d) sucker & Hooks
41. The Primary Host of *T. solium* is
a. Man b) cat c) Pig d) bat
42. Crab belongs to a class.....
a. Arachnida b) Crustacea c) Insecta d) Gastropoda

Long answer questions on Animal diversity of invertebrates

1. Discuss the role of the water vascular system in echinoderms like starfish and sea urchins.
2. Give an account on metamerism in Annelida.
3. Describe life cycle of *Ascaris*.
4. Provide examples of cnidarian animals and explain the function of cnidocytes in capturing prey.
5. Give general characters and classification of phylum Arthropoda upto classes.

6. Give an account on vision in Arthropoda.
7. Explain the importance of coelom in invertebrate animals and how it differs among various groups.
8. Give an account on torsion and add a note on detorsion in mollusca.
9. Give general characters and classification of phylum Annelida upto classes.
10. Compare and contrast the body plans of flatworms and roundworms, highlighting their distinctive features.
11. Describe the main characteristics of mollusks, and provide examples of different mollusk classes.
12. Explain the concept of metamorphosis in insects and its adaptive significance.
13. Give general characters and classification of phylum Echinodermata upto classes.
14. Give an account on water vascular system in Asteroidea.
15. Describe the complex behaviors and adaptations of social insects, such as ants and bees.
16. Discuss the unique reproductive strategies of different invertebrate groups, such as hermaphroditism and parthenogenesis.
17. Describe parasitic adaptations in Ascaris.
18. Compare and contrast the characteristics of complete and incomplete metamorphosis in insects.
19. Explain the role of the water vascular system in echinoderm locomotion and feeding.
20. Give general characters and classification of phylum Mollusca upto classes.

Short answer question on animal diversity of Animal diversity

1. What are invertebrates?
2. How do invertebrates differ from vertebrates?
3. Scolex of Tapeworm
4. Apolysis in tapeworm
5. Metamerism in Annelida
6. Name three major invertebrate phyla.
7. Vision in Arachnida
8. What is the primary characteristic used to classify animals as invertebrates?
9. What is the role of a coelom in some invertebrates?
10. Nervous and hormonal control of metamorphosis
11. Slime mould
12. Dinoflagellates
13. What is the function of the exoskeleton in arthropods?
14. Give an example of a soft-bodied invertebrate.
15. Types of vision in Arthropoda
16. Hemimetabolous development
17. Effects of torsion
18. Which invertebrates have a segmented body?
19. Significance of torsion
20. General characters of class Cestoda
21. What are the major body cavities in invertebrates?
22. Name an invertebrate that exhibits radial symmetry.
23. Rhizopodium
24. Effective and recovery strokes of a flagellum
25. Effective and recovery strokes of a cilium
26. What are the key features of the phylum Porifera?

27. What is the primary feeding mechanism in sponges?
28. Lobopodium
29. Hemimetabolous development
30. Gradual metamorphosis
31. What are cnidocytes, and in which phylum are they found?
32. What is the role of the water vascular system in echinoderms?
33. Which phylum includes animals with a radula?
34. Holometabolous development
35. Mechanism of metamorphosis
36. Diatom
37. Which invertebrate phylum is known for having a pseudocoelom?
38. In which phylum are nematodes classified?

Seat No.	
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B.Sc part-I Sem-I (CBCS) Examination, Oct-Nov 2023
Subject-Zoology (Paper-I)
Subject code-71607

Day and Date: Wednesday-1/11/2023.
Time-2.30pm-4.30pm

Total marks-[50]

Q.1 Answer the following questions choosing the correct alternatives given below them. [10]

1) One of the following is a flagellated protist.....

- a) Euglena b) Paramecium c) Amoeba d) Diatoms

2) Jelly fish belongs to class.....

- a) Pisces b) Hydrozoa c) Scyphozoa d) Anthozoa

3) Scolex of tapeworm has.....

- a) Mouth and suckers b) Mouth and hooks
c) Only suckers d) Suckers and hooks

4) Locomotion in Amoeba is achieved by

- a) flagellum b) Cilia and pseudopodia c) pseudopodia d) Cilia

5) Ascaris is.....

- a) Hermaphrodite b) Monoecious c) Unisexual d) Bisexual

6) Crab belongs to a class.....

- a) Arachnida b) Crustacea c) Insecta d) Gastropoda

7) The primary host of *Taenia solium* is.....

- a) Pig b) Cat c) Man d) Bat

8) Sea star belongs to the class

- a) Crinoidea b) Echinoidea c) Asteroidea d) Cystidea

9) Class..... belongs to phylum annelida

- a) Hirudinea b) Crustacea c) Insecta d) Gastropoda

10) Pila belongs to a class.....

- a) Gastropoda b) Scaphopoda c) Pelecypoda d) Cephalopoda

Q.2 Write Long answer (Any Two)

[20]

- 1) Describe life cycle of Ascaris.
- 2) Give general characters of kingdom Protista.
- 3) Give general characters and classification of phylum Arthropoda upto classes.
- 4) Give an account on Water vascular system in Asteroidea.

Q.3 Write Short Notes on (Any Four)

[20]

- 1) General characters of Echinodermata
- 2) Effect of torsion
- 3) Scolex of tapeworm
- 4) Give characters of class scyphozoa and mention its one examples
- 5) Give general characters of class calcarean
- 6) Slime mould