

**Bajaj College of Science, Wardha**  
**Practice Sheet During Lockdown**  
**B.Sc. Semester II**  
**Subject : Zoology**  
**(Life and Diversity of Animals – Chordates)**

**UNIT I**

**Long Questions**

1. Discuss Origin of Chordates along with its Theories?
2. Explain Phylogenetic Tree of Evolution – Chordates
3. State general characters of group Protochordata along with its classification?
4. Protochordates – General Characters
5. Describe in detail External features of *Herdmania*?
6. Explain the structure of Ascidian Tadpole?
7. Discuss in detail the Retrogressive Metamorphosis in *Herdmania*?
8. Explain in detail the external morphology of *Branchiostoma*?
9. Sense organs in *Branchiostoma*?

**Short Questions (one or two sentences)**

1. Chordates, 2. Phylogeny, 3. Urochordata, 4. Cephalochordata, 5. *Herdmania*,  
6. Stigmata, 7. Siphon, 8. Ascidian, 9. Nerve cord, 10. Notochord, 11.  
Myotomes, 12. Papillae, 13. Oral hood, 14. Wheel organ, 15. Hatscheck  
groove, 16. Hatscheck pit, 17. Infundibulum, 18. Kollickers Pit, 19. Atriopore,  
20. Cerebral Pigment Spot, 21. Eye Spots, 22. Vellar Tentacles, 23. Sessile,  
24. Shallow, 25. Pelagic, 26. Protochordates, 27. Cephalodiscus, 28.  
Jamoytius, 29. Ostracoderms, 30. Ordovician

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## UNIT II

### Long Questions

1. State the concept of Agnatha along with its distinguishing characters?
2. Discuss general characters and affinities of division Agnatha?
3. Agnatha – General Characters
4. Agnatha – Affinities with Other Phyla
5. Discuss class Cyclostomata features with details of *Petromyzon* and *Myxine*?
6. Class Cyclostomata – General Characters
7. *Petromyzon*– General Characters
8. *Myxine* – General Characters
9. Discuss class Cyclostomata features with details of *Myxine*?
10. Describe in detail Origin of Fishes. Briefly explain class Chondrichthyes with one example?
11. Describe in detail Origin of Fishes. Briefly explain class Osteichthyes with one example?
12. Difference between Class Chondrichthes and Osteichthyes with 10 characters
13. Explain the types, causes and significance of Migration in Fishes?
14. Discuss Origin of paired fins in Fishes?

### Short Questions (One or two Sentences)

1. Agnatha, 2. Gnathastomes, 3. Lamprey, 4. Hag fishes, 5. Cyclostomes, 6. Suctorial Mouth, 7. Ectoparasite, 8. Gill pores, 9. Slime pores, 10. Cartilage, 11. Operculum, 12. Cycloid scales, 13. Placoid scales, 14. Ctenoid scales, 15. Bony fishes, 16. Carps, 17. Homocercal fin, 18. Diphyrcercal fin, 19. Hypocercal fin, 20. Stream line body, 21. Pineal eye, 22. Median fins, 23. Pectoral fins, 24. Pelvic fins, 25. Migration, 26. Schooling, 27. Shoaling, 28. Catadromous migration, 29. Anadromous migration, 30. Lateral line in fishes

## UNIT III

### Long Questions

1. Explain in detail the Accessory Respiratory Organs in Fishes?
2. Discuss Osmoregulation phenomenon in Fishes?
3. Origin of Amphibians
4. Amphibians – General Characters
5. Amphibians – Classification upto Orders with examples
6. State the Origin of Amphibians? Also state at least 10 distinguishing characters of Amphibians with examples.
7. Discuss Parental Care in Amphibians?
8. Explain *Neoteny* phenomenon in Amphibians?

### Short Questions (One or two sentences)

1. Accessory Respiratory Organs, 2. Eels, 3. Arborescent organs, 4. Gill fans, 5. Swim Bladder, 6. Air bag, 7. Buoyancy, 8. Labyrinthine organs, 9. Anabas, 9. Tetrapods, 10. Amphibia, 11. Osmoregulation, 12. Stenohaline, 13. Euryhaline, 14. Osmosis, 15. Diffusion, 16. Ambystoma, 17. Axolotl larva, 18. Neoteny, 19. Paedogenesis, 20. Parotid glands, 21. Toads, 22. Prolactin, 23. Thyroid gland, 24. Chromophores, 25. Herpetology, 26. Midwife Toad, 27. Facultative breathers, 28. Obligatory breathers, 29. Diadromy, 30. Batrachology

## Unit IV

### Long answer questions

1. Classify Reptilia upto the orders giving important characters and suitable examples.
2. What are temporal vacuities? Explain their taxonomic importance in reptilian groups.
3. Describe the distinctive characters and origin of class Reptilia.

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4. Describe the methods for distinguishing poisonous and non poisonous snakes.
5. With well labeled diagrams, write a detailed note on poison apparatus and biting mechanisms in snakes.
6. Differentiate between poisonous and non-poisonous snakes.
7. What is venom? Write a detailed note on properties of snake venom.

**Short answer questions (Answer in one or two sentences)**

1. Which two subclass of reptilian have living reptiles?
2. What is meaning of term Rhyncocephalia?
3. Define Herpetology.
4. What do you mean by pentadactyle?
5. Which subclasses of Reptiles are extinct?
6. What is loreal pit?
7. Name living reptiles, one each for a) diapsid skull b) anapsid skull
8. Which reptiles possess four chambered heart?
9. What do you understand by infralabial and supralabial ?
10. Give two examples of poisonous and two examples of non poisonous snakes.
11. What is neurotoxic venom?
12. What do you understand by Haemotoxic venom?
13. What are the important muscles required for biting mechanisms of snakes?
14. What are fangs? Name the different type of fangs.
15. What is Solenoglyphous fangs?
16. What are proteroglyphous and Opisthoglyphous fangs?
17. What are poison glands?

**Unit V**

**Long answer questions**

1. Describe the origin of birds. Mention the important theories regarding the origin of birds.
2. "Birds are glorified reptiles" Critically analyze the statement.
3. Give an detailed account on Ratitae.

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4. Write a detailed comparison between Ratitae and Carinatae.
5. Explain in detail, the Flight or Ariel adaptations in birds.
6. Describe the Anatomical adaptations which help the birds for flight.
7. What is migration? Explain migration in birds.

**Short answer questions (Answer in one or two sentences)**

1. What are the characters of Pterygoids in Ratitae and Carinatae.
2. What is Vomer?
3. What do you mean by Syrinx?
4. What are Cassoary?
5. What do you mean by Diphyletic origin of birds?
6. What is precocial?
7. What is Altricial?
8. What are the flight muscles in birds?
9. Write the examples of birds performing latitudinal migration?
10. What do you understand by longitudinal migration?
11. What is Erratic migration?
12. What is partial migration ?
13. Write the examples of birds performing Altitudinal migration.
14. What are resident birds?
15. What is Archaeopteryx ?

**Unit VI**

**Long answer questions**

1. Describe the distinctive characters of Mammals
2. Explain the origin of mammals.
3. Explain the characters of prototheria.
4. Differentiate between Prototheria, Metatheria and Eutheria.
5. Write a detailed note on adaptive radiation in mammals.
6. Explain in details, the Urogenital system in Mammals.

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7. Give a comparison account of Heart in fishes, amphibians, reptiles, birds and mammals.

**Short answer questions (Answer in one or two sentences)**

1. What are Metatheria?
2. Examples of Marsupials?
3. What are differences between prototheria and metatheria?
4. What are the Eutherian characters present in metatheria?
5. What is urinogenital system?
6. What are the basic functions of mammalian kidney?
7. What are Mullerian ducts?
8. What is a nephron?
9. What are metanephrons and mesonephrons?
10. What is Archinephron?
11. What are pronephrons?
12. What do you mean by venous heart?
13. What is Foramen of Panizzae?
14. What is Truncus arteriosus?
15. What is bulbus arteriosus?
16. What do you understand by double circulation?

For any queries, feel free to contact us on E-mail/ Whats App No.:

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