

SARASWATI



HEAD OFFICE

208, CD, LOCAL SHOPPING CENTER
AGGARWAL SHOPPING PLAZA, PITAMPURA

BRANCH-1

AYODHYA CHOWK
SEC – 3 , ROHINI

BRANCH-2

DC CHOWK
SEC – 9, ROHINI

9TH & 10TH MATHS / SCIENCE

11TH & 12TH – PHYSICS / CHEMISTRY / MATHS / BIOLOGY

EXCLUSIVE BATCH FOR NEET / JEE ASPIRANTS

Ph no. 9696 500 500 / 9696 400 400

BIOLOGY

CHAPTER-4 ANIMAL KINGDOM

(1 MARK)

Q1. Identify the phylum in which adults exhibit radial symmetry and larvae exhibit bilateral symmetry.

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Q2. Mention one example each for animals with chitinous exoskeleton and those covered by a calcareous shell.

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Q3. Give one example each for an animal possessing placoid scales and that with cycloid scales.

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Q4. Which group of chords possess sucking and circular mouth without jaws?

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Q5. Mention two modifications in reptiles required for terrestrial mode of life.

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Q6. What speciality do the legs/appendages of animals belonging to phylum Arthropoda have?

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Q7. When is the coelom said to be a true coelom?

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Q8. Segmentation in the body is first observed in which of the following:

- (a) Platyhelminthes (b) Aschelminthes (c) Annelida (d) Arthropoda

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Q9. Why are animals of phylum Platyhelminthes?

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Q10. Why are the parasitic forms of Platyhelminthes provided with hooks and suckers, while the free-living forms do not have them?

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Q11. Why animals of Aschelminthes are called roundworm?

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Q12. Why is the coelom in Ascaris described as pseudocoelom?

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Q13. Why is the phylum Annelida named so?

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Q14. What is the role of radula in moliusca?

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Q15. Water vascular system is the characterstic of which group of the following?

- (a) Porifera (b) Ctenophora (c) Echinodermata (d) Chordata

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Q16. How important is the presence of air bladder in Pisces?

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(2 Mark)

Q17. Could the number of eggs or young ones produced by an oviparous and viviparous mother be equal?
Why?

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Q18. There has been an increase in the number of chambers in heart during evolution of vertebrates. Give the names of the class of vertebrates having two, three or four-chambered heart?

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Q19. Sort out the animals on the basis of their symmetry (radial or bilateral): coelenterates, ctenophores, annelids, arthropods and echinoderms.

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Q20. Fill in the blank spaces (a), (b), (c) and (d) in the table given below:

Phylum/Class	Excretory organs	Respiratory organs
Arthropoda	(a)	Gills,Lungs,Tracheal system/skin/parapodia
(b)	Nephridia	Skin/ parapodia
mollusca	metanephridia	(c)
Amphibia	(d)	Lungs

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Q21. Classify the following as warm blooded and cold blooded organisms. Rana, Scoliodon, Penguin, Blue whale.

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Q22. Draw a labelled diagram of hypothetical animal showing chordate characters.

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Q23. How important is the presence of air bladder in pisces?

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Q24. Mention two similarities between:

(a) Aves and mammals

(b) A frog and crocodile

(c) A turtle and Pila

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Q25. Give an example of the following:

(a) Round worm

(b) Fish possessing poison sting

(c) A limbless reptile/ amphibian

(d) An oviparous mammal

Q178. Why is Pila asymmetrical ?

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Q25. Given below are the pairs of animals and phylum which they belong to. Which out of these is not a matching pair and why?

Taenia (Tapeworm) – Platyhelminthes

Pheretima (Earthworm) – Annelida

Asterias (Starfish) – Mollusca

Adanisa (Sea Anemone) – Coelenterata

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Q26. Mention any four features present in animals belonging to phylum Porifera?

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Q27. Difference between intracellular and extracellular digestion?

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Q28. What is the difference between direct & indirect development?

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Q29. What is metagenesis? Mention an example which exhibits this phenomenon.

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Q30. What are the peculiar features that you find in parasitic Platyhelminthes?

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Q31. Match the following list of animals with their level of organisation.

DIVISION OF LABOUR	Animals
A. Organ Level	(i) Pheretima
B. Cellular Aggregate Level	(ii) Fasciola
C. Tissue Level	(iii) Spongilla
D. Organ system Level	(iv) Obelia

Q32. Provide appropriate technical term in the space provided:

- (a) Blood – Filled cavity in arthropods _____
- (b) Free- Floating form of cnidarian _____
- (c) Stinging organ of jelly fishes _____ -
- (d) Lateral appendages in aquatic annelids _____

Q33. 'All vertebrates are chordates, but all chordates are not vertebrates'. Justify the statement.

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Q34. Match the following

Animals	Locomotory Organ
a. Octopus	(i) Limbs
b. Crocodile	(ii) Comb Plates
c. Catla	(iii) Tentacles
d. Ctenoplana	(iv) Fins

(3 Mark)

Q35. What are the difficulties that you would face in classification of animals, if common fundamental features are not taken into account?

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Q36. 'All vertebrates are chordates but all chordates are not vertebrates'. Justify the statement.

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Q37. How useful is the study of the nature of body cavity and coelom in the classification of animals?

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Q38. What are the modifications that are observed in birds that help them to fly?

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Q39. What are the reasons that you can think of for the arthropods to constitute the largest group of the animal kingdom?

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Q40. Differentiate between polyp and medusa.

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Q41. (a) Name any two phyla which have parasitic members.

(b) What is bioluminescence? Give an example.

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Q42. Identify the phylum that exhibit each of the following feature:

(a) Jointed appendages

(b) Comb plates

(c) Water vascular system

(d) Pseudocoelom

(e) Metagenesis

(f) Notochord

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Q43. How are animals of arthropoda from those of mollusca?

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Q44. Give an example for each of the following?

(a) A viviparous animal.

- (b) A fish possessing an electric organ?
- (c) A fish possessing a poisonous sting.
- (d) An organ, which regulates buoyancy.
- (e) Animal which exhibits alternation of generations.
- (f) Oviparous animal with mammary glands.

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Q45. Excretory organs of different animals are given below. Choose Correctly and write in the space provided.

Animal	Excretory organ/unit
(a) Balanoglossus	(i) Metanephridia
(b) Leech	(ii) Nephridia
(c) Locust	(iii) Flame cells
(d) Liver Fluke	(iv) Absent
(e) Sea urchin	(v) Malpighian tubules
(f) Pila	(vi) Proboscis Gland

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Q46. Prepare a list of six animals that are found parasitic on human beings.

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Q47.If you are given a specimen, what are the steps you would follow to classify it?

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(5 Mark)

Q48. Aaditya's friend was bitten by a snake while they were on a nature walk in the wilderness, Aaditya identified the snake as a viper and immediately took his friend to the hospital.

- (a) How did Aaditya identify the snake as pit viper?
- (b) What type of venom the snake's bite contained?
- (c) How did the doctor treat Aaditya's friend?
- (d) Name any two snakes with neurotoxic venom.
- (e) What modifications are present in the mouth of poisonous snakes?
- (f) What values are shown by Aaditya?

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Q49. Sia got red coral earrings for her birthday. She was really inquisitive about the corals so she asked her biology teacher about their origin. Her teacher explained to her that the corals were the secretions of cnidarians.

- (a) How is the red coral obtained?
- (b) Give the classification of the organism that secretes it.
- (c) What are coral reefs?
- (d) How coral reefs form stable marine ecosystems?
- (e) What are the values shown by Sia's teacher?

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Q50. Rohan's mother was very concerned about her son. She always used to give him advice on how he should study, the healthy food he should eat and how he should behave. One day Rohan saw some birds flying independently and asked his mother that why animals do not take care of their young ones as human beings? His mother explained that parental care is well developed in some animals also such as monkeys, apes and elephants.

- (a) Explain parental care in animals.
- (b) Give two examples of animals that show parental care and how?
- (c) What values are shown by Rohan's mother?

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Q51. While Saarth was on a visit to his hometown. He noticed mounds made out of mud in the mango orchards. He started kicking them playfully. His grandfather stopped him and told him that there are tiny insects called termites, that they in colonies inside these mounds.

- (a) How do termites show polymorphism?
- (b) What is the nest of termites called?
- (c) To which class and phylum do termites belong and what is their scientific name?
- (d) What values were shown by Saarth's grandfather?

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Q52. Give the characteristic feature of the following, citing one example of each?

- (a) Chondrichthyes and osteichthyes

(b) Urochordata and cephalochordate.

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Q53. Comment upon the habitats and external features of animals belonging to class, Amphibia and reptilia.

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Q54. Compare the characters of chordates and non-chordates?

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Q55. Classify the sub-phylum vertebrate using flow diagram?

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Q56. Ctenophora and Cnidaria are diploblastic animals, while Chordates, Annelids, Arthropods, etc. are triploblastic.

(a) What is meant by diploblastic animals?

(b) What are triploblastic animals?

(c) What value is represented in this?

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Q57. Despite the differences in the structures and forms of different animals, there are certain fundamental features, common to all animals; those features are used as the basis of classification.

(a) What is meant by

(i) cellular level and

(ii) tissue level of organisation?

(b) What value is implicit in this?

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Q58. Petromyzon, Scoliodon and Labeo are all fishes; but they are placed in three different classes under Chordata.

(a) How does Petromyzon differ from the other two.

(b) Name the classes to which Scoliodon and Labeo belong, respectively.

(c) Mention the value seen in these features.

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Q59. Mammals are considered to be the most successful group of animals, which live in a variety of habitats ranging between polar ice cap to deserts and deep seas.

(a) Mention any four features that are characteristic of this class that made them successful?

(b) Why is a bat, a flying animal, placed under mammalia and not under Aves?

(c) What values is indicated by these differences in the animals of the same class?

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