

**Important Questions CBSE Class 9th : Science Year 2009
(Diversity in Living Organism–Animalia)**

Q.1. How do poriferan animals differ from coelenterate?

Answer :

Poriferan		Coelenterate	
1	Pores called ostia are there and a large opening at the top.	1	Only one opening is there.
2	There is canal system for the circulation of water throughout the body.	2	There is no water canal system in the body.
3	External skeleton is present.	3	Skeleton is absent.
4	The body design has minimal differentiation.	4	Body design has differentiation.
5	Absent of tentacles.	5	Presence of tentacles.

Q.2. How do annelid animals differ from arthropods?

Answer :

Annelid animals		Arthropods	
1	Have true body cavity (coelomic cavity) not filled with blood.	1	The coelomic cavity is blood filled.
2	They have lateral appendages for locomotion in the form of chitinous setae or parapodia.	2	They have jointed legs for locomotion.
3	Annelids like earthworm and leech do not have chitinous exoskeleton.	3	They have chitinous exoskeleton.

Q.3. What are the differences between amphibians and reptiles?

Answer :

Amphibians		Reptiles	
1	Animals can live both on land and in water.	1	Animals can live either on land or in water.
2	No scales on the body.	2	Scales on the body.
3	Eggs of this animals do not have tough covering.	3	Eggs of this animals have tough covering.
4	Lay their egg in water.	4	They do not need to lay their eggs in water.

5	For fertilization, water is necessary.	5	For fertilization water is not required.
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Q.4. What are the differences between animals belonging to the Aves group and those in the mammalian group? Answer :

Aves		Mammals	
1	They have beak.	1	They do not have beak.
2	Body is covered with feathers.	2	Body is not covered with feathers but covered with hair.
3	Forelimbs are modified for flight.	3	However, may be modified for various purpose. However, may be modified for various purpose.
4	They lay eggs.	4	They produce live young.
5	They do not have mammary gland.	5	They have mammary glands.

Q.5. State the important features of members of animal kingdom?

Answer : Characteristics of animalia are:-

- (i) An eukaryotic organisms without cell walls.
- (ii) Have multicellular body.
- (iii) Are heterotrophic.
- (iv) Most of the animals are mobile.

Q.6. State classification of Animal kingdom upto phylum level in order of hierarchy?

Answer : Classification of animal kingdom are:-

- (i) Porifera
- (ii) Coelenterata (Cnidaria)
- (iii) Platyhelminthes
- (iv) Nematoda (Aschelminthes)
- (v) Annelida
- (vi) Arthropoda
- (vii) Mollusca
- (viii) Echinodermata
- (ix) Protochordata
- (x) Vertebrata.

Q.7. State the salient features of phylum porifera?

Answer : Salient features are:-

- (i) Have pores with a single large opening.
- (ii) Name of animal is sponges and they have a characteristics canal system for water passage, which is not found in other animals.
- (iii) Their skeleton is made up of calcareous or siliceous spicules or sponging fibres.
- (iv) They reproduce by asexually and sexually.

Example – Sycon, Spongilla and Euplectella.

Q.8. State the salient features of phylum cnidaria (coelenterata)?

Answer : Main features are:-

- (i) The body is Radially Symmetrical.
- (ii) Body bears Tentacles supplied with cnidoblasts.
- (iii) Cavity in the body is present.
- (iv) Body is made of two layers of cells.
- (v) Some of them live in colony (Obelia) while others live solitary (Hydra).
- (vi) They exist in two types known as Zooids – Polyps and Medusae. Polyps are always fixed while Medusae are free swimming.
- (vii) Reproduction is usually asexual (budding) in polyp form and sexual in medusae form.

Examples – Hydra (sea anemones), Obelia, Aurelia and jelly fish.

Q.9. State the salient features of phylum platyhelminthes (Flatworms)?

Answer : Salient features are:-

- (i) Body is dorsoventrally flat and leaf-like or ribbon like.
- (ii) Symmetry of body is bilateral.
- (iii) They are mostly hermaphrodite.
- (iv) There is no body cavity.
- (v) Animals of this phyla are triploblastic.

Example – Dugesia (planaria), Fasciola (liver fluke) and Taenia solium (tap worm).

Q.10. State the salient features of phylum Nematoda (Aschelminthes) (round or thread worm)?

Answer : Salient features are:-

- (i) Most of them are small cylindrical or round worms.
- (ii) Body cavity is not a true coelom. A pseudocoelom is present.
- (iii) Body is bilaterally symmetrical and triploblastic.
- (iv) There are separate sexes.

Example – Ascaris (round worm), Ancylostoma (hook worm) and Wuchereria (filarial worm).

Q.11. State the salient features of phylum annelida (segmented worm)?

Answer : Salient features are:-

- (i) Have elongated and segmented body.
- (ii) Body bears lateral appendages for locomotion.
- (iii) Body is bilaterally symmetrical and triploblastic.
- (iv) Reproduce by sexually. Sex may be separate or hermaphrodite.
- (v) They have true coelom (body cavity).

Example – Pheretima (earthworm), Hirudinaria (cattle leech) and Nereis.

Q.12. State the salient features of phylum arthropoda (animals with jointed feet/appandages)?

Answer : Phylum arthropoda is the largest group of animals.

The salient features are:-

- (i) They have jointed legs/appandages.
- (ii) They have chitinous exoskeleton.
- (iii) The body is segmented and divided into two regions – Cephalothorax (head and thorax joined)

and Abdomen or into three regions – Head, Thorax and Abdomen.

(iv) Body cavity is reduced and filled with blood (Haemocoel).

(v) Body symmetry is bilateral.

(vi) The blood does not flow in definite blood vessels (open circulatory system).

Example – Apis (honey bee), Musca (House fly), Anopheles (mosquito), Palaemon (Prawn), Crabs etc.

Q.13. State the salient features of Phylum Mollusea?

Answer : The salient features are:-

(i) Body is soft and unsegmented.

(ii) Body is divided into three regions – Head, Dorsal visceral mass and Ventral foot.

(iii) Body symmetry is bilateral.

(iv) The coemic cavity is reduced.

(v) Have open circulatory system and kidney like organ for excretion.

(vi) Some of them have hard calcareous shell(an outer covering of the body).

(vii) They respire by gills called etenidia.

Example – Pila (snail), Unio (fresh water mussel) and Octopus.

Q.14 . State the salient features of phylum Echinodermata (spiny skinned animals)?

Answer : The salient features are:-

(i) They are marine and free living.

(ii) They are triploblastic with a coelomic cavity.

(iii) Body surface is covered by calcareous spines.

(iv) Body cavity is modified into a water-vascular system which is connected with tube feet for locomotion.

(v) Their sexes are separate.

Example – Asterias (star fish), Echinus (sea urchin), Antedon (feather star) etc.

Q.15. State the salient features of phylum Protochordata?

Answer : The salient features are:-

(i) The animals are bilaterally symmetrical, triploblastic and have a coelom.

(ii) They have notochord running along the back separating the nervous tissue from the gut. This provide support and a place for muscles to attach.

(iii) They are marine animals.

Example – Balanglossus, Herdmania, Amphioxus, etc.

Q.16. State the salient features of vertebrata?

Answer : The salient features are:-

(i) They are bilaterally symmetrical.

(ii) Have true vertebral column and internal skeleton.

(iii) Have dorsal nerve cord. (iv) They are triploblastic.

(v) They are coelomate.

(vi) Land vertebrates respire through lungs while aquatic through gills.

Vertebrates are grouped into five classes.

Q.17. State the salient features of Pisces?

Answer : The salient features are:-(i) They are fish and live in water.

(ii) Skin is covered with scale/plates.

(iii) They have streamlined body.

(iv) They are cold-blooded.

(v) Their hearts have only two chambers.

(vi) They lay eggs.

(vii) Some have skeleton made of cartilage (shark) and some with skeleton made of both bone and cartilage (tuna or rohu).

Example – sharks fish, rohu fish, Dog fish, angler fish, lion fish, torpedo, etc.

Q.18. State the salient features of Amphibia (Vertebrates leading two lives)?

Answer : Salient features are:-

(i) Form of the bodies varies and skin is not covered with scales.

(ii) They can live both on the land and in the water. Larval forms always live in water.

(iii) They are cold blooded animals. (iv) Three chambered heart is there.

(v) Breath through lungs or gills.

(vi) Lay eggs in water.

(vii) They live in fresh water or moist places.

(viii) Their body is with head and trunk but neck is absent.

(ix) There are mostly two pairs of pentadactyle limbs with no claws.

(x) In some cases limbs is absent.

Example – Salamander, Toad (Bufo), Frog (Rana tigrina), Necturus, Tree Frog (Hyla), etc.

Q.19. State the salient features of Reptilia (Creeping Vertebrates)?

Answer : Salient features are:-

(i) Most of them are terrestrial and live in warmer region.

(ii) Body is covered with scales and varies in form.

(iii) Most of them have two pairs of pentadactyl limbs (except snakes and some lizards).

(iv) Heart is three chambered (crocodile has four chambered heart, ventricle is incompletely divided into chambers).

(v) Breath through lungs only.

(vi) Eggs have tough covering and do not need water for laying eggs.

Example – Hemidactylus (wall lizard), Chameleon, Draco (flying lizard), Crocodiles, Snakes, Turtle, etc.

Q.20. State the salient features of Aves (Birds)?

Answer : Salient features are:-

(i) Forelimbs are modified into wings.

(ii) Body covered with feathers.

(iii) Mouth surrounded by a hard beak modified in different form for different purposes.

(iv) Four chambered heart.

(v) Breath through lungs only.

(vi) Warm blooded animals.

(vii) Lay eggs with hard shell.

(viii) Size varies from smallest humming bird to largest ostrich.

Example – Columba (pigeon), Passer (sparrow), Struthio (ostrich), etc.

Q.21. State the salient features of Mammalia (Mammals).

Answer : Salient features are:-

- (i) Body varies in shape and is covered with hair, sweat and oil glands.
- (ii) Breath through lungs only.
- (iii) Have mammary glands.
- (iv) Most of them produce live young except Platypus and Echidna which lay eggs.
- (v) Warm blooded animals.
- (vi) Four chambered heart.
- (vii) Have two pairs of pentadactyl modified for various purposes.

Example – Panthera (lion, tiger), Macropus (kangaroo), Pan (chimpanzee), Elephas (elephant), Rattus (rat), Balaenopetera (whale), etc.

Q.22. State the phylum of sponges?

Answer : Porifera.

Q.23. State the largest phylum of animal kingdom (animalia)?

Answer : Phylum Arthropoda.

Q.24. Give any two characteristics features of animals?

- Answer :** (i) They move from place to place and ingest food.
(ii) Their growth stop after maturity.

Q.25. Give the difference between :

- (i) Bony and cartilaginous fishes.**
- (ii) Bilateral and radial symmetry.**
- (iii) Notochord and nerve cord.**

Answer :

(I) Bony and cartilaginous fishes.

Bony Fishes	Cartilaginous Fishes
Body is covered with cycloid or ctenoid scales.	Skin is covered with Placoid scales.

(ii) Bilateral and radial symmetry.

Bilateral Symmetry	Radial symmetr
An animal has bilateral symmetry , if it has two equal but opposite right and left halves when it is cut lengthwise in the middle vertical plane. Example – Frog.	Animal has radial symmetry, if it is symmetrical with any plane through its longitudinal axis. Body is divided into equal halves. Example – Hydra.

(ii) Notochord and nerve cord.

Notochor	Nerve cord
It is a part of skeleton system.	It is a part of nervous system.