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NCERT Solutions for Class 9 Science BIOLOGY – Diversity in Living Organisms



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NCERT ANNEXURE

Below are the solutions for Subjective type questions from NCERT Annexure.

1. What are the advantages of classifying organisms?

Ans. (i) It allows for a comparison of how closely related organisms are based on which level of organization they hold in common.

(ii) It serves as a common language for the whole world, reducing confusion between regional names for a certain animal.

- (iii) Differentiation between closely related organisms when speciation occurs.
- (iv) It is based on observable features.

2. How would you choose between two characteristics to be used for developing a hierarchy in classification?

- **Ans.** Before developing a hierarchy, we need to decide which characteristics should be used as the basis for making the broadest division.
 - Then we pick up next set of characteristics for making subgroups.
 - This process must continue and each time new characteristics should be used.
 - The characteristics in the next level should be dependent on the previous one that will decide the subsequent divisions of the groups.

3. Explain the basis for grouping organisms into five kingdoms.

Ans. The main basis for grouping organisms is-

- (a) The complexity of cell structure: prokaryotic or eukaryotic
- (b) Number of cells: unicellular or multicellular
- (c) Mode of nutrition: autotrophic or heterotrophic
- (d) Phylogenetic relationship
- (e) Presence or absence of cell wall.

4. What are the differences between amphibians and reptiles?

Ans.

Amphibians	Reptiles	
1. Skin is moist and slimy.	Skin is dry and covered by scales.	
2. Claws absent.	Claws Present.	
3. 3 chambered heart.	3 ¹ / ₂ chambered heart.	
4. External fertilization.	Internal fertilization.	
5. Lay eggs inside water.	Lay eggs outside water.	
6. Eggs have a soft covering.	Eggs have a hard covering.	

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5. Ans.

What are the differences between animals belonging to Aves and those to Mammalia?

•	Aves	Mammalia	
	1. Mammary glands absent.	Mammary glands present.	
	2. Forelimbs modified into wings.	Wings are mostly absent (Except in Bats)	
	3. Body covered with feathers.	Body covered with hair.	
	4. Beak present but teeth absent.	Teeth present.	
	5. Oviparous.	Viviparous.	

NCERT EXEMPLAR

Below are the 5 Objective type questions from NCERT Exemplar

1. Find out an incorrect sentence.

(A) Protista includes unicellular eukaryotic organisms.

(B) Whittaker considered cell structure, mode and source of nutrition for classifying the organisms in five kingdoms.

(C) Both Monera and Protista may be autotrophic and heterotrophic.

- (D) Monerans have a well-defined nucleus.
- Ans. (D)

2.	Which among the following has specialised tissue for conduction of water?					
	(i) Thallophyta	(ii) Bryophyta	(iii) Pteridophyta	(iv) Gymnosperms		
	(A) (i) and (ii)	(B) (ii) and (iii)	(C) (iii) and (iv)	(D) (i) and (iv)		
Ans.	(C)					
3.	Which among the following produce seeds?					
	(A) Thallophyta	(B) Bryophyta	(C) Pteridophyta	(D) Gymnosperms		
Ans.	(D)					
4.	Which one is a true fish?					
	(A) Jellyfish	(B) Starfish	(C) Dogfish	(D) Silverfish		
Ans.	(C)					
5.	Which among the following is exclusively marine?					
	(A) Porifera	(B) Echinodermata	(C) Mollusca	(D) Pisces		
Ans.	(B)					

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