

Diversity in the Living World

Chapter-2

Ques 1. Here are two types of seeds. What differences do you find among the roots and leaf venation of their plants?



(a) Wheat



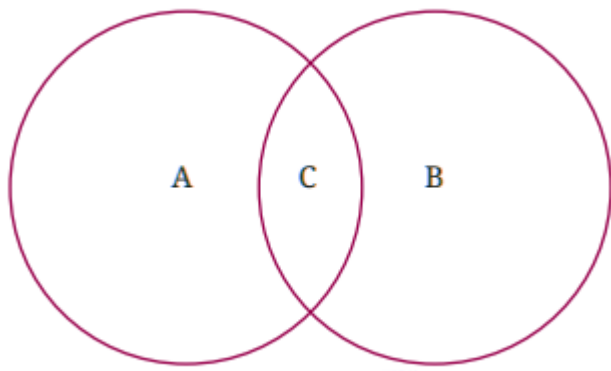
(b) Kidney beans

Answer:

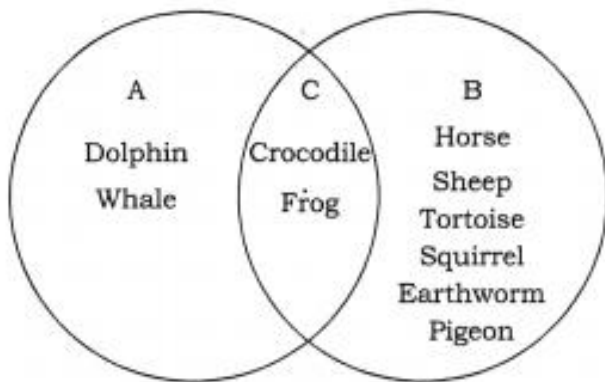
Wheat plants have fibrous roots and leaves with parallel venation. The Kidney bean plants have taproots and leaves with reticulate venation.

Ques 2. Names of some animals are given below. Group them based on their habitats. Write the names of aquatic animals in the area marked A' and terrestrial animals in the area marked 'B'. Enter the names of animals living in both habitats in part 'C'.

Horse, Dolphin, Frog, Sheep, Crocodile, Squirrel, Whale, Earthworm, Pigeon, Tortoise



Answer:



Ques 3.

Manu's mother maintains a kitchen garden. v. One day, she was digging out radish from the soil. She told Manu that radish is a kind of root. Examine a radish and write what type of root it is. What type of venation would you observe in the leaves of radish plant?

Answer:

Radish is a taproot. The leaves of radish plant have reticulate venation.

Ques 4.

Look at the image of a mountain goat and a goat found in the plains. Point out the similarities and differences between them. What are the reasons for these differences?



(a) Mountain Goat



(b) Goat found in the plains

Answer:

Similarities: They both have four legs, two horns and one tail and their bodies are covered with fur.

Differences: In comparison to goats found in the plains, mountain goats have woolly fur, a hump on the shoulders and cloven hooves. Their legs are relatively shorter than the legs of goats found in the plains.

The difference in these features arise due to the difference in the climate of the habitats. Mountain goats are adapted to survive in extreme cold conditions while goats found in the plains are adapted to survive in the plains.

Ques 5.

Group the following animals into two groups based on any feature other than those discussed in the chapter- cow, cockroach, pigeon, bat, tortoise, whale, fish, grasshopper, lizard.

Answer:

We can group these animals into two groups based on whether they have backbone or not.

Animals which have backbone	Animals which do not have backbone
Cow, pigeon, bat, tortoise, whale, fish, lizard	Cockroach, grasshopper

Ques 6.

As the population grows and people want more comfortable lives, forests are being cut down to meet various needs. How can this affect our surroundings? How do you think we can address this challenge?

Answer:

People cut trees to provide land for houses, buildings, roads and factories. People often clear forests to meet the constantly increasing demand for wood and timber. Overgrazing by animals and mining activities are other reasons due to which forests are being cut on a large scale. Large scale cutting of forests (also known as deforestation) can affect our surroundings in the following ways:

- Forest are home to wildlife. Therefore, removal of forest cover can result in the disappearance of wildlife.
- Trees play an important role in the generation of oxygen and absorption of carbon dioxide. Carbon dioxide is a greenhouse

gas. Hence, cutting of trees on large scale will hamper the balance of the environment resulting in global warming.

- Deforestation also leads to soil erosion, lowering of water table, and other issues related to environment.

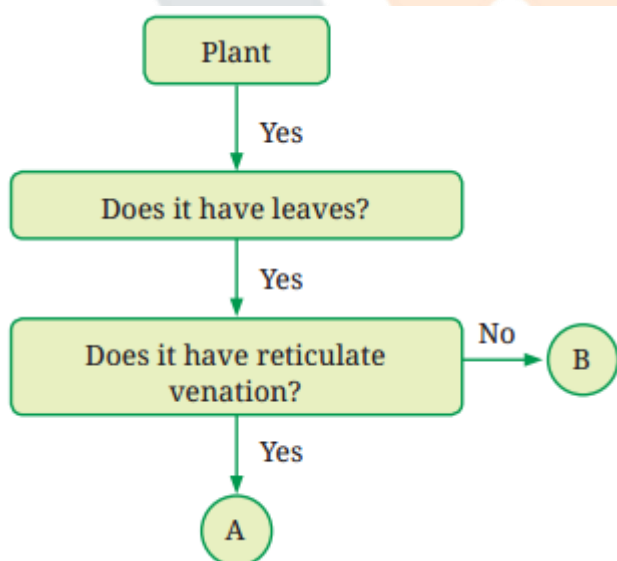
We can address this challenge by:

- Planting new plants
- Avoiding wastage of paper
- Avoiding use of firewood

Avoiding buying the products and goods made by companies that are responsible for deforestation Controlling population

Ques 7.

Analyse the flowchart. What can be examples of 'A' and 'B'?



Answer:

'A' can be gram, bean, tomato, ladyfinger, mango, papaya and brinjal. 'B' can be wheat, rice, lilies, onion, pineapple, corn, etc.

Ques 8. Raj argues with his friend Sanjay that “Gudhal (hibiscus) plant is a shrub”. What Quess can Sanjay ask for clarification?

Answer:

Sanjay can ask the following Quess:

What is the height of Gudhal plant?

Does it bear a thin and woody stem?

Are the branches close to the ground?

Ques 9.

Based on the information in the table, find out examples of these plants for each group.

Group	Type of seed	Type of root	Examples
A	Dicot	Taproot	
B	Monocot	Fibrous roots	

(a) What other similarity do plants of group A have?

(b) What other similarity do plants of group B have?

Answer:

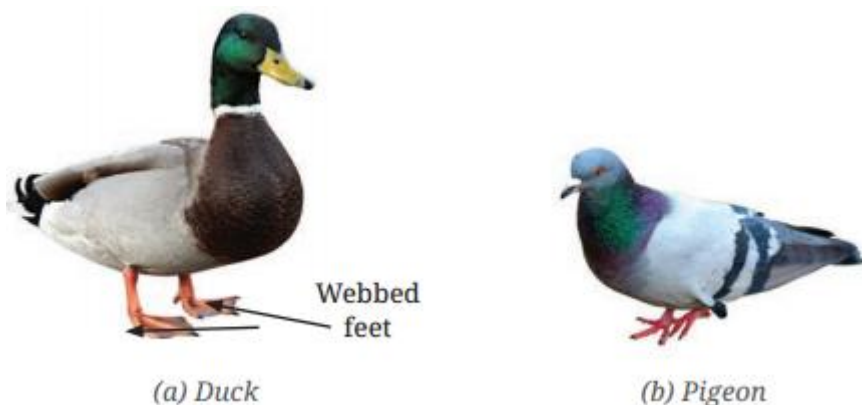
Group	Type of seed	Type of root	Example
A	Dicot	Taproot	Gram, beans, bottle ground, mango
B	Monocot	Fibrous root	Wheat, rice, maize

(a) Plants of group A have reticulate venation.

(b) Plants of group B have parallel venation.

Ques 10.

Observe the labelled part of a duck in the picture given below. What differences do you observe in the feet of the duck compared to the other birds? Which activity would the duck be able to perform using this part?



Answer:

Ducks have webbed feet while other birds do not have webbed feet. Due to presence of webbed feet, ducks can swim easily in water.