Chemistry Worksheet Class 7 on Chapter 17 Forests: Our Lifeline with Answers - Set 1

Q1. The branchy part of a tree above the stem is called:-

a.) canopy
b.) hub
c.) crown
d.) shrub

Correct Answer– (c.) crown

Q2. Which of the following has a canopy?

a.) Tall trees
b.) Short tree
c.) Creepers
d.) Shrubs

Correct Answer– (a.) Tall trees

Q3. Which of the following occurs due to deforestation?

a.) Floods
b.) Soil erosion
c.) Landslides
d.) All of the above

Correct Answer– (d.) All of the above

Q4. The micro-organisms which convert dead and decay matter.

a.) herbivores
b.) carnivores
c.) decomposers
d.) scavengers

Correct Answer– (c.) decomposers

Q5. Which of the following will be affected most in the absence of decomposers?

a.) Animals
b.) Plants
c.) Insects
d.) All of the above

Correct Answer– (d.) All of the above

Q6. Fill in the blanks:
a.) Plants are ___ because they prepare their own food.
b.) ____ is the process of planting trees in large numbers.
c.) ____ gas is consumed during photosynthesis.

Answer.
a.) Plants are autotrophs because they prepare their own food.
b.) Afforestation is the process of planting trees in large numbers.
c.) Carbon dioxide gas is consumed during photosynthesis.

Q7. State True or False.
a.) Deforestation occurs due to overgrazing.
b.) Van Mahotsava is the celebration of planting saplings on a large scale
c.) Decomposers feed on dead animals.

Answer.
a.) Deforestation occurs due to overgrazing– True.
b.) Van Mahotsava is the celebration of planting saplings on a large scale– True.
c.) Decomposers feed on dead animals– False

Q8. Define scavengers.

Answer. Scavengers consume dead animals and act as environmental cleaners. Examples of scavengers include vultures, crows, jackals, hyenas, and other insects.

Q9. How can you say that forests are valuable resources?

Answer. Forest products are essential to socio-economic development. We obtain food (cereals, pulses, fruits), firewood, fibre, building material, industrial products (tannins, lubricants, dyes, resins, perfumes), and medicinal products. It is also home to a variety of wildlife that helps to maintain the ecosystem. As a result, forests are valuable resources.

Q10. Explain how plants and animals help in maintaining the $O_2 – CO_2$ cycle.

Answer. Plants and animals help in maintaining the $O_2 – CO_2$ cycle through photosynthesis and respiration.

Animals breathe in oxygen and release carbon dioxide gas during respiration. Plants, on the other hand, use carbon dioxide gas in photosynthesis to produce food and release oxygen into the atmosphere. Thus, plants and animals aid each other in the exchange of gases in the atmosphere.

Q11. Differentiate between autotrophs and heterotrophs.

Answer.

Autotrophs	Heterotrophs
Plants, for example, produce their own nourishment from simple ingredients. They are known as autotrophs, and their feeding style is known as autotrophic nutrition.	Heterotrophs are organisms that rely on plants or autotrophs for nourishment, and heterotrophic nutrition is the mechanism of nutrition they use.
Autotrophs are known as producers because they produce the food that all other species require.	Heterotrophs are known as consumers because they eat food made by autotrophs.
Autotrophs are the first trophic level of a food chain.	After plants, heterotrophs form the next trophic level in the food chain.
Autotrophs include plants, algae, and some microorganisms.	Heterotrophs include most mammals, fungi, and microbes.

Q12. What is deforestation?

Answer. Deforestation is the large-scale removal of trees from forests (or other lands) to allow for human activities. It is a major environmental concern because it can lead to biodiversity loss, habitat damage, disruptions in the water cycle, and soil erosion. Climate change and global warming are also exacerbated by deforestation.

Q13. Is it possible to build a food chain without a producer?

Answer. No, producers are always at the beginning of any food chain. All living organisms get their food from the producer. If the producer is not present in a food chain, there will be no energy flow. As a result, we can say that constructing a food chain without a producer is impossible.

Q14. How does deforestation cause soil erosion?

Answer. In the absence of trees and plants, there are no roots which can bind the soil particles together and prevent them from being carried away by strong winds or heavy rains. This causes soil erosion.

Q15. How can we help in preserving forests?

Answer. Forests can be preserved in the following ways:
- Controlled Deforestation – We must strive to avoid large-scale commercial deforestation. In the long run, adopting practices such as clear-cutting or selective cutting will be beneficial.
- Prevent Forest Fires- Precautions must be taken in the event of a forest fire. Making fire lanes, spreading chemicals to control fires, removing dry leaves and trees, and so on.
- Afforestation is the process of planting more trees in the area. We try to increase forest cover through manual transplantation or new tree planting.
- Improved Farming Practices- Slash and burn farming, cattle overgrazing, and shifting agriculture are all damaging to the environment, particularly forests. All of these practices must be kept under control.

Q16. How do trees grow in the forest without being harmed by humans? Explain.

Answer. The forest is a self-contained system. Because of the presence of humus, the forest floor is fertile. Many plants' seeds are dispersed by various agents such as animals, wind, and water. When these seeds are exposed to favourable conditions such as nutrients, water, and the appropriate temperature, they germinate into a seedling and then into a plant. As a result, no human intervention is required for trees to grow in a forest.

Q17. What is the importance of forests?

Answer. The importance of forest are as follows:
- Forests help to purify air and water.
- Forests provide food, water, shelter, and medicine to those living there.
- Forests help to conserve soil by preventing soil erosion and flooding.
- Forests help in maintaining nature's water cycle, resulting in adequate rainfall.
- Forests provide a natural habitat for wild animals and birds, aiding in wildlife conservation.
- Forests also help to keep the balance of carbon dioxide and oxygen in the atmosphere.

Q18. What happens when after a certain period of time the plants and animals die?

Answer. Plants and animals do not live indefinitely. When plants and animals die, microorganisms break down the dead parts of plants and dead bodies of animals into simple substances such as mineral salts or nutrients, carbon dioxide, and water that the plants can use. Decomposers are microorganisms such as bacteria and fungi. They are also non-green organisms. The nutrients of plants and animals are thus mixed with the soil of the forest.

Q19. What would happen if forests disappeared?

Answer. Forests are essential to the natural balance. If it vanishes, the following may occur:

If forests disappear, the amount of carbon dioxide in the atmosphere will rise, causing the earth's temperature to rise.

- Animals will not have food or shelter if trees and plants are absent.
- In the absence of trees, the soil will not hold water, resulting in flooding.
- Deforestation endangers both our lives and the environment.

Q20. List the major functions of a tree's crown in a forest.

Answer. The crown of the tree is the branchy part of a tree above the stem. The crown is the top part of a tree that contains all of the branches and leaves. Different trees have different crowns, as well as different shapes and sizes. The primary functions of a tree's crown are to absorb solar energy, perform photosynthesis, release oxygen, and carry out the processes of respiration and transpiration. The crown's leaves perform all of these functions. The crown's branches only support the leaves. The crown of a tall tree creates a green canopy over the forest land.