Chapter 17. Forests: Our Lifeline

Very Short Q&A:

Q1: Name the resource that serves as green lungs and water purifying systems in nature.

Ans: Forest

Q2: Elephants and Jackals live in the deeper area of the forest.True/False

Ans: True

Q3: Forest provides a _____ for many animals and plants.

Ans: Home

Q4: The variety of plants found in forests includes

a. Shrubs
b. Climbers
c. Creepers
d. All of the above

Ans: All of the above

Q5: What is crown of the tree?

Ans: The branchy part of the tree above the stem is known as crown of the tree.

Q6: There is similar kind of trees in every forest.True/False

Ans: False

Q7: The types of animal also differ from forest to _____.

Ans: Forest

Q8: Name some insects found in forest.

Ans: Spiders, squirrels, ants etc.

Q9: Grass is eaten by_____ which in turn is taken by _____.

Ans: Insects which in turn is taken by frog.

Q10: Complete the following food chain: Grass --->Insects _____ --->snake ---> _____.

Ans: Grass --->Insects ---> Frog ---> Snake ---> Eagle.

Q11: Name the process by which plants release oxygen.

Ans: Photosynthesis

Q12: Plants also maintain balance of oxygen and carbon dioxide in the atmosphere.True/False

Ans: True.

Q13: The decaying animal _____ provides nutrients to the seedling in the forest to grow.

Ans: Dungs

Q14: Name the living organism that helps in maintaining the supply of nutrients to the growing plants in the forest.

Ans: Decomposers

Q15: Forest is dynamic living_____.

Ans: Entity

Q16: Forest is full of life and _____.

Ans: Vitality

Q17: The area surrounded by forest does not receive good rainfall.True/False

Ans: False

Q18: The advantage of living in an area nearby or surrounded by forest is:

a. Less rainfall
b. Less noise pollution
c. Unpleasant weather

d. None of these

Ans: Less noise pollution

Q19: Name some factors responsible for clearing of forests.

Ans: Construction of roads and buildings, industrial development, increasing demand of wood etc.

Q20: Forest is on the verge of disappearing because of

a. Overgrazing of animals
b. Indiscriminate felling of trees
c. Urbanisation
d. All of the above

Ans: All of the above

Q21: Forest is source of medicinal plants. True/False

Ans: True

Q22: The insects, butterflies, honeybees and birds help flowering plants in_____.

Ans: Pollination.

Q23: A forest is a purifier of _____ and _____ water.

Ans: Air and ground.

Q24: Name the plant that forms the lowest layer in forest.

Ans: Herbs form the lowest layer in the forest.

Q25: The decaying leaves and animal droppings in a forest enrich the soil nutrition in the form of humus. True/False

Ans: True

Q26: Which of the following is not a forest product?

a. Plywood
b. Sealing wax
c. Gum
d. Kerosene

Ans: Kerosene

Q27: Micro-organisms act upon the dead plants to produce

a. Humus
b. Sand
c. Wood
d. Mushroom

Ans: Humus

Q28: What is canopy?

Ans: Tall trees which look like roof over other plants in the forest is called canopy.

Q29: Forests are the _____for the forest dwelling communities.

Ans: Home

Q30: The different horizontal layers in the forest are known as understoreys.True/False

Ans: True

Q31: Forest helps in causing floods.True/False

Ans: False

Q32: Name any two forest products.

Ans: Wax and paper

Q33: _____will endanger our life and environment.

Ans: Deforestation

Q34: What is Endemic species?

Ans: When an animal or a plant is found in a specific area, it is known as an endemic species.

Q35: 35. The soil of the forest is moist and warm because it is covered with leaves and fruits. True/False

Ans: True

Q36: Forest also acts as natural_____ of rain water.

Ans: Absorber

Short Q&A:

Q1: Discuss the role of forest in maintaining the balance between oxygen and carbon dioxide in the atmosphere.

Ans: The forest plays an important role in maintaining the balance between oxygen and carbon dioxide in the atmosphere. As we know plants for their food nutrition requirement make use of process of photosynthesis, in which they consume Carbon Dioxide, released by the living organism from the environment. As a result of photosynthesis, plants release oxygen which is again consumed by living beings for respiration and this cycle goes on.

Q2: There is no waste in a forest. Explain

Ans: There are several organisms and micro-organisms that live in the soil convert waste into useful nutrients called humus. This is why there is no waste in forest.

Q3: Explain how animals dwelling in the forest help it grow and regenerate.

Ans: The wide variety of animals helps the forest to regenerate and grow. In forest, plants produce food. All animals, whether herbivores or carnivores, depend ultimately on plants for food. Organisms which feed on plants often get eaten by other organisms, and so on. For example, grass is eaten by insects, which in turn, is taken by the frog. The frog is consumed by snakes. This is said to form a food chain:

Grass→ insects→ frog→ snake→ eagle.
Many food chains can be found in the forest. All food chains are linked. If anyone food chain is disturbed, it affects other food chains. These food chains produce a lot of supplementary products which are vital for the plants growth. The micro-organisms which convert the dead plants and animals to humus are known as decomposers. Decomposers help in maintaining the supply of nutrients to the growing plants in the forest. Decaying heap of animal dropping is good source of nutrition for plants in the forest. The decaying animal dung also provides nutrients to the seedlings to grow. The animals also disperse the seeds of certain plants and help the forest to grow.

Q4: Explain how forests prevent floods.

Ans: Forest absorbs rainwater and allows it to seep naturally; its leaves and branches prevent rain to hit the ground directly.

Q5: What are decomposers? Explain with example.

Ans: The micro-organisms which convert the dead plants and animals to humus are known as decomposers like Fungi and bacteria. They convert dead leaves and dead animals into humus.

Q6: What role does decomposer play in forest?

Ans: Decomposers convert dead leaves and dead animals into humus.

Q7: Explain the importance of forest.

Ans: Forests provide us with oxygen. They protect soil and provide habitat to a large number of animals. Forests help in bringing good rainfall in neighbouring areas. They are a source of medicinal plants, timber and many other useful products. By the process of transpiration and photosynthesis, forests maintain the temperature. Forests provide shelter for the animals and act as a protective camouflage. Forests provide shelter and food to the tribes living in the jungle. Forest trees such as the bamboo are used in making furniture, baskets, ladders, etc. The teak tree is used to make furniture. The Neem tree is used for medicinal purposes. Forests also provide wood to make paper and other products such as gum, wax, rubber, and honey. Forest influence climate, water cycle and air quality. Forests play a very important role in the food chain. When forests are affected, they affect living beings such as animals and plants.

Q8: What would happen if forests disappear?

Ans: The conditions and issues we have to face when forests disappears are:

- Soil erosion: Trees in a forest hold soil with their roots. If trees are gone, soil will be washed away.
- Landslides: Without trees, land will be very unstable and easily down the slope.
- Water pollution: Without tree roots holding the soil in a forest, soil will run into the river.
- Temperature increase
- Loss of biodiversity: Plants and animals will lose their food and shelter.
- Floods: Bald hills and mountains can no longer hold back sudden flows of water, which cause floods.
- Increase in carbon dioxide: Depletion of forests results in increase in carbon dioxide, which will cause global warming.

Q9: Explain why there would be the chances of increase in carbon dioxide with the decrease in number of forests?

Ans: The forest plays an important role in maintaining the balance between oxygen and carbon dioxide in the atmosphere. As we know plants for their food nutrition requirement make use of process of photosynthesis, in which they consume Carbon Dioxide, released by the living organism from the environment. As a result of photosynthesis, plants release oxygen which is again consumed by living beings for respiration and this cycle goes on.

Q10: How water pollution will be affected with the depletion of forest?

Ans: Without tree roots holding the soil in a forest, soil will run into the river and will cause water pollution.

Q11: Explain why there is a need of variety of animals and plants in a forest?

Ans: Animals and plants in a forest are dependent on the other for food. So there is a need of variety of animals and plants in a forest. Many food chains can be found in the forest like

Grass→ insects→ frog→ snake→ eagle.

Q12: Explain how forest affects our food chain.

Ans: Grass is eaten by insects, which in turn, is taken by the frog. The frog is consumed by snakes. This is said to form a food chain:

Grass→ insects→ frog→ snake→ eagle.
Many food chains can be found in the forest. All food chains are linked. If anyone food chain is disturbed, it affects other food chains. These food chains produce a lot of supplementary products which are vital for the plants growth. The micro-organisms which convert the dead plants and animals to humus are known as decomposers.

Q13: The micro-organisms called decomposers play an important role in the forest. Discuss

Ans: The micro-organisms called decomposers play an important role in the forest. The presence of humus ensures that the nutrients of the dead plants and animals are released into the soil. From there, these nutrients are again absorbed by the roots of the living plants. The dead animals become food for vultures, crows, jackals and insects. In this way, the nutrients are cycled. So, nothing goes waste in a forest.

Q14: Why should we worry about the conditions and issues related to forests far from us?

Ans: We should worry about the conditions and issues related to forests far from us because forests influence climate, water cycle and air quality of planet earth in a big way. Forests provide us with oxygen. If forests disappear, the amount of carbon dioxide in air will increase, resulting in the increase of earth's temperature. They provide habitat to a large number of animals. In the absence of trees and plants, the animals will not get food and shelter. They protect soil. In the absence of trees, the soil will not hold water, which will cause floods. Forests help in bringing good rainfall in neighbouring areas. They are a source of medicinal plants, timber and many other useful products.

Q15: Explain why there is a need of variety of animals and plants in a forest.

Ans: For a sustainable forest eco system, there has to be variety of animals and plants in a forest. Forest is a system comprising various plants, animals and micro-organisms. The various components of the forest are interdependent on one another. In the forest, there is interaction between soil, water, air and living organisms.Different layers of vegetation provide food and shelter for animals, birds and insects. All animals, whether herbivores or carnivores, depend ultimately on plants for food.Organisms which feed on plants often get eaten by other organisms, and thus part of some food chain. Many food chains can be found in the forest. All food chains are linked. Some micro-organisms called decomposer, like mushroom (fungi), feed upon the dead plant and animal tissues and convert them into a dark coloured substance called humus. Humus enriches the soil with nutrition which helps in plants growth. The dead animals become food for vultures, crows, jackals and insects. By harbouring greater variety of plants, the forest provides greater opportunities for food and habitat for the herbivores. Larger number of herbivores means increased availability of food for a variety of carnivores. Not only is this, decaying heap of animal dropping a source of food to various insects or decomposers which ultimately enrich the soil with nutrition in the form of humus.

Q16: Why forest floor seemed to be dark coloured?

Ans: The forest floor seemed dark coloured as it is covered with a layer of dead and decaying matters like leaves, fruits, seeds, twigs and small herbs.

Q17: Define the following:

- Crown
- Understoreys

Ans:

- Crown:The branchy part of tree above the stem is called crown.
- Understoreys:Trees have crowns of different type and sizes, these creates different horizontal layers in the forest, these are known as understoreys.

Q18: What do you mean by canopy?

Ans: Tall trees look like a roof over the other plants in the forest, this is called canopy.

Q19: What is the interrelationship between plants, soil and decomposers?

Ans: Decomposers break down fallen leaves, branches, etc. into materials that plants can use. This also amends the soil so that it holds more water for longer periods of time. Soil is a living entity, made up of the dirt (inorganic sand, clay, etc.), nutrients, and microbes. The decomposers live in the soil, which is enriched by the dead forest material.

Q20: What happens if an animal dies in the forest?

Ans: The dead animals become food for vultures, crows, jackal and insects and in this way nutrients are cycled, thus we say nothing goes waste in forest.

Q21: Differentiate between humus and decomposers.

Ans: A dark-brown or black organic substance made up of decayed plant or animal matter. Humus provides nutrients for plants and increases the ability of soilto retain water. But decomposers are the microorganisms that convert the dead plants and animals to humus.

Q22: If there were fewer trees, how will the water cycle be affected?

Ans: Forests help in bringing good rainfall in neighbouring areas. Forest also act as natural absorber of rain water and allows it to seep, it help in maintaining the water table throughout the year.

Q23: Why even after a heavy rainfall, the ground in the forest remains dry?

Ans: The upper layer of the forest canopy intercepts the flow of rain drops and most of the water comes down through the branches and the stems of the tree, from the leaves rain water drips slowly over branches of the shrubs and herbs, thus the ground does not wet at all.

Q24: What are the benefits of residing in nearby forest area?

Ans: Following are the benefits of residing in nearby forest area:

- Pleasant weather
- Less noise pollution
- Good rainfall

Q25: Explain the reasons behind deforestation.

Ans: Population explosion: Large areas of forests have been cleaned for agriculture, factories, road and rail tracks, industries, mining and quarrying have seriously affected the forest. Expanding agriculture is one of the most important causes of deforestation. As demands on agricultural products rise more and more land is brought under cultivation for which forests are cleared, grass-lands ploughed, uneven grounds levelled, marshes drained and even land under water is reclaimed. Forest fires also destroy trees, seeds and the animal life. A part from these Grazing and gnawing mammals trample the young plants, and damage their trunks and roots. Deforestation can endanger our life and environment.

Long Q&A:

Q1: Explain why forest is called "the dynamic living entity"?

Ans: The wide variety of animals helps the forest to regenerate and grow. In forest, plants produce food. All animals, whether herbivores or carnivores, depend ultimately on plants for food. Organisms which feed on plants often get eaten by other organisms, and so on. For example, grass is eaten by insects, which in turn, is taken by the frog. The frog is consumed by snakes.
This is said to form a food chain:

Grass→ insects→ frog→ snake→ eagle.

Decomposers play an important role in the forest. They feed upon the dead plant and animal tissues and convert them into a dark coloured substance called humus. For exampleFungi grow on decaying fruits and vegetables and convert them into humus. By harbouring greater variety of plants, the forest provides good opportunities for food and habitat for the herbivores. Larger number of herbivores means increased availability of food for a variety of carnivores, the wide variety of animals helps the forest to regenerate and grow. Thus forest is the dynamic living entity that is the full of life and vitality.