

Chapter - 2 Land and Soil Resources

Q. Give reasons for the following

1. Soil is a precious resource.

Ans. Because soil is responsible for the sustenance of all plants, animals and human beings.

2. Different crops are grown on the same land in consecutive years.

Ans. As different crops need different minerals from the soil, it prevents any one type of nutrients from being exhausted from the soil.

3. Laterite soils are not fertile.

Ans. Because it is formed when heavy rains wash away the fertile upper part of the soil.

4. Conservation of resources is necessary.

Ans. Resources should be utilised judiciously, so that after fulfilling our present requirement they can also be preserved for future generations.

D. Answer these questions in brief.

Q1. Mention any four uses of land:

Ans. Following are the four uses of land.

- ① Agriculture ② Forestry ③ Mining
- ④ Building houses.

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Q2. What are shelter belts?

Ans In dry areas, where wind erosion is common, rows of trees and shrubs should be planted to check the velocity of the wind. These rows are called shelter belts.

Q3. How are mountains important to us?

Ans Mountains are the store house of many types of minerals. They are also rich in flora and fauna.

Q4. What are the causes of soil erosion?

Ans Running water leading cause of soil erosion, because water is abundant and has a lot of power. Wind is also a leading cause of soil erosion because wind can pick up soil and blow it far away.

Q5. What is land use?

Ans The term land use, is defined as using land for different purposes, such as agriculture, forestry, mining, building houses, setting up industries and roads and railways.

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E. Answer these questions in detail.

Q1. With the help of a neatly labelled diagram, describe a soil profile.

Ans Note:- Diagram of soil profile
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A vertical section of soil from the surface to the parent rock is called soil profile. The layers or horizons of soil from top to bottom are as follows.

A Horizon (Top soil) : This layer is dark in colour, has a fine texture, has a high content of organic matter and is vital for plant growth.

B Horizon (sub soil) : This is the layer just below the top soil, it consists of sand and clay but has only minor amounts of organic matter.

C Horizon (Parent Material) : This layer comprises the deposits on the earth's surface from which soil developed. It has small pieces of rock not affected by weathering.

D Horizon (Bed Rock) :- This layer has the unbroken solid rock sheets, and are located several feet below the ground surface.

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Give an account of the various methods of soil conservation.

Soil conservation means protecting topsoil from getting eroded. Some of the methods employed by the farmers to conserve soil are:

Contour Ploughing: In this method, the farmer ploughs along a slope rather than up and down the slope. It reduces erosion.

Strip Cropping: It is method of growing different crops - cover crops alternating with cultivated crops - in narrow strips.

Contour barriers: Bunds made using stones, grass and soil can be used to build barriers along contours to restrict the flow of water.

Mulching: The bare ground is covered with a layer of organic matter like straw or husk to retain soil moisture.

Afforestation: It is the process of planting large numbers of trees on land which has fewer or no trees on it.

Q3. Explain with examples how economic and human factors determine the type of land use?

Economic factors: Plains formed by rivers provide fertile soil and receive abundant water for agriculture. Mountain slopes are covered with thick forest cover, and the scenic beauty is an attraction for tourists. The plateau region is a storehouse of minerals, so mining becomes activity.

Human factors :- The lifestyle of the people, the location of a place and its accessibility affect land use. Land can be under private ownership or community ownership.

Q4. Write two important features of each soil type in India.

Alluvial Soil : ① It is formed by the depositional action of rivers.

② It is very fertile and suitable for agriculture.

Black Soil : ① It is derivative of the weathering of lava rocks.

② It is ideal for the growth of cotton crop.

Red Soil : ① It is reddish in colour because of the presence of iron-oxide.

② It is normally less fertile soil.

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Laterite Soil : ① It is rich in iron and aluminium.

② It is used for brick making.

Mountain Soil : ① It is formed due to the deposition of organic matter.

② It is rich in humus.

Desert Soil : ① It is usually light in color.

② It contains a high proportion of soluble salts.

Explain the different methods of soil conservation.

Same as answer No. 2

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