

Subject- S. S. T Class- 8 Topic- Natural Resources- Land, Soil and Water

Learn and Write

A. Multiple Choice Questions (MCQs)–[Tick (✓) the correct options.]

1. These areas have the highest density of population.

(a) mountains ☐

(b) plateaus ☐

(c) plains ☐

2. It is the topmost layer of the earth.

(a) topsoil ☐

(b) subsoil ☐

(c) bedrock ☐

B. Fill in the blanks.

1. The black soil is locally called

2. are rows of trees and shrubs that check movement of wind.

3. soil is most widespread in India.

4. projects are called 'Temples of Modern India'.

C. Write (T) for true and (F) for false statements.

1. About 90 per cent of the world's population lives in only 30 per cent of its land area.

2. India uses more than 50 per cent of its land for cultivation.

3. *Regur* is the local name of the red soil.

4. Water is a non-renewable natural resource.

D. Match the following.

1. plateau
2. subsoil
3. alluvial soil
4. laterite soil

- (a) Chhota Nagpur Plateau
- (b) the most fertile soil
- (c) rainwater collects in this layer
- (d) raised tablelands

Answer The Following

A. Multiple Choice Questions (MCQs)—[Tick (✓) the correct options.]

1. It is not a method of checking soil erosion.

(a) contour ploughing ☐ (b) terrace farming ☐ (c) deforestation ☐

2. Of the earth's total water resources, the freshwater available for our use is

(a) 3 per cent ☐ (b) 1 per cent ☐ (c) less than 1 per cent ☐

B. Differentiate between the following.

1. topsoil and subsoil
2. alluvial soil and black soil
3. terrace farming and strip cropping

C. Short Answer Questions

1. How can we conserve our land resources?
2. Write briefly about different factors that contribute to the formation of soil.
3. Which is the most appropriate method to check soil erosion on steep slopes?
4. What do you understand by contour ploughing?
5. Why is only a fraction of the surface area of the earth, occupied by humans?

D. Long Answer Questions

1. With the help of a diagram describe the different layers of soil profile.
2. Discuss any four ways to conserve water.
3. Why are the multipurpose projects called the 'Temples of Modern India'?
4. Explain different ways of conserving soil.

E. HOTS (Higher Order Thinking Skills) Questions

1. Why is land an important gift of nature?
2. How can we fulfil the increasing demand for freshwater?

2. Natural Resources-Land, Soil And Water

EXERCISE

Quick Revision

A. 1. (c) 2. (a)

B. 1. *regur* 2. Shelter belts
3. Alluvial 4. Multipurpose

C. 1. (T) 2. (T) 3. (F) 4. (F)

D. 1. (d) 2. (c) 3. (b) 4. (a)

Answer The Following

A. 1.(c) 2. (b)

B.	1.	Topsoil	Subsoil
		(a) It is the topmost layer of the soil. (b) It is rich in humus and contains decayed remains of plants and animals.	It is the layer found below the topsoil. Rainwater seeps and collects in this layer. It contains silt, sand, clay and nutrients.
	2.	Alluvial Soil	Black Soil
		(a) It is found in the northern plains, coastal plains and deltas of rivers. (b) It is formed due to the deposition of sediments by the rivers. (c) It is ideal for the cultivation of rice and Jute.	It is found in the north-western part of the Deccan plateau. It is formed by dark igneous rocks and is made up of fine clayey material that can hold moisture. It is ideal for cultivation of cotton and sugar cane.
	3.	Terrace Farming	Strip Cropping
		It is practised in hilly areas where the hill slopes are cut into terraces to grow crops.	In this method, small grains and grasses are planted alternately with cultivated crops in narrow strips for absorbing moisture and surface soil together.

- C. 1. The ways by which we can conserve our land resources are as follows.
- conserve soil and forests
 - adapt scientific techniques
 - adhere to judicious use of chemical fertilisers and pesticides
 - check deforestation
 - observe afforestation and land reclamation
 - check overgrazing
 - provide better irrigation facilities
2. The major factors that contribute to the formation of soil are nature of the parent rock, climate factors, relief features, humus and time period.

3. Terrace farming is the most appropriate method to check soil erosion on steep slopes.
4. Contour ploughing is a method in which the farmer ploughs parallel to the contours of a hill slope to form a natural barrier for water to flow down from the slopes.
5. Due to harsh climatic conditions or unfriendly relief features, only a fraction of the surface area of the earth is occupied by humans.

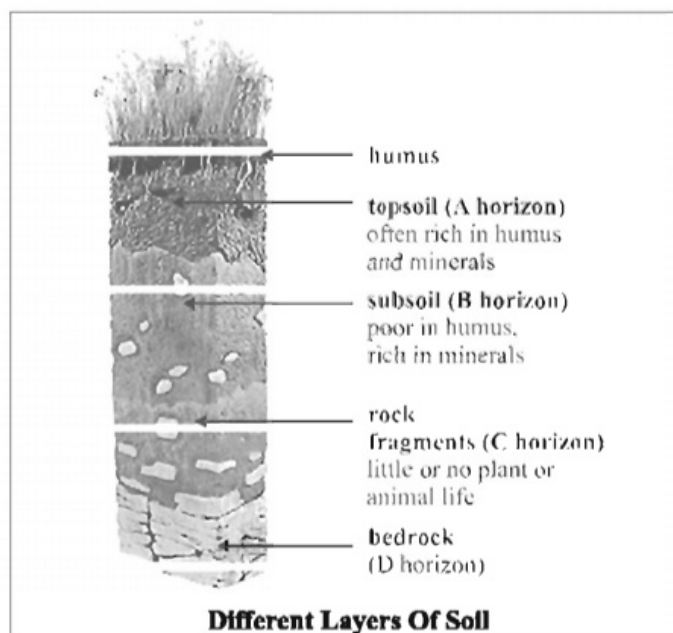
D. 1. The different layers of soil profile are:

(a) Topsoil is the topmost layer and is rich in humus.

(b) Subsoil is the layer below the topsoil which is made of silt, clay, sand and some nutrients.

(c) Rock fragments lie between the subsoil and the parent bedrock. It consists of weathered rocks.

(d) Bedrock is the last and bottom most layer in the soil profile. It is the solid layer of unweathered rock.



2. The four ways to conserve water are :
 - (a) Planting trees and vegetation to check run-off and allow rainwater to seep underground.
 - (b) Water harvesting should be done in both urban and rural areas to store rainwater. Effluents should be treated before they are drained into waterbodies.
 - (c) Sprinkler irrigation and drip irrigation should be promoted. In dry regions with high rates of evaporation, drip or trickle irrigation is very useful.
 - (d) Water can also be conserved by planned utilisation and protecting the available water sources from pollution.
3. The multipurpose projects are called the 'Temples of Modern India' because they serve many purposes at the same time like-irrigation, controlling flood, generating electricity, breeding fish and creating recreational facilities.

After Independence, the Government of India undertook different multipurpose projects like Bhakra Nangal Dam on River Sutlej to make water easily available for farming and other related activities as an agricultural country like India requires a continuous supply of fresh water to irrigate the farmlands.

4. The different ways of conserving soil are:

- (a) **Afforestation:** More and more trees, shrubs and grasses should be planted and reckless cutting down of forests should be stopped.
- (b) **Checking Overgrazing:** Overgrazing by animals should be checked as the land becomes exposed to rain and wind. Fodder should be grown as a crop.
- (c) **Crop Rotation:** The cultivation of different crops on the same piece of land each year during different times is called crop rotation. The practice of crop rotation adds nutrients to the soil and helps in pest control.
- (d) **Contour Ploughing:** In this method, the farmer ploughs parallel to the contours of a hill slope to form natural barrier for water to flow down from the slope.
- (e) **Terrace Farming:** This method reduces the speed of flowing rainwater. In this method, the hill slopes are cut into terraces to create flat areas to grow crops.
- (f) **Strip Cropping:** It is the method, cover crops are planted alternatively with cultivated crops in narrow strips. These cover crops absorb the moisture and hold the surface soil together.
- (g) **Cover Cropping:** In areas such as orchards and plantations, cover crops are planted between the young trees to check soil erosion.
- (h) **Planting Shelter Belts:** In dry areas where wind erosion is common, rows of trees and shrubs are planted to reduce the speed of wind to protect the soil. These rows are called shelter belts.
- (i) **Rock Dams:** Rocks are piled up to check the flow of water and prevent soil loss by floods.

E. HOTS (Higher Order Thinking Skills) Questions

1. (a) Land is an important gift of nature because we live on land and it satisfies our needs for food, clothing and shelter.

(b) It is used for different purposes such as cultivation of crops, grazing of animals, mining, construction of roads, houses, buildings and setting of industries.

2. To fulfill the increasing demand for freshwater, we have to utilise the available resources judiciously and avoid wastage. Along with this we have to:

(a) plant trees and shrubs to allow rainwater to seep underground

(b) implement water harvesting to store rainwater

(c) promote sprinkler and drip irrigation in dry areas

(d) protect water from pollution