

Exercises

A. Multiple choice questions:

1. D. All of these
2. D. Private land
3. A. Cultivable land
4. B. Annual floods renew it with silt
5. Conserve soil

B. Fill in the blanks:

1. Agriculture
2. Soil, rock
3. Waterlogging
4. Salinisation and waterlogging
5. Chernozems

C. Give one word:

1. Black soil
2. Shelter belt
3. Terrace farming
4. Clayey
5. Alluvial

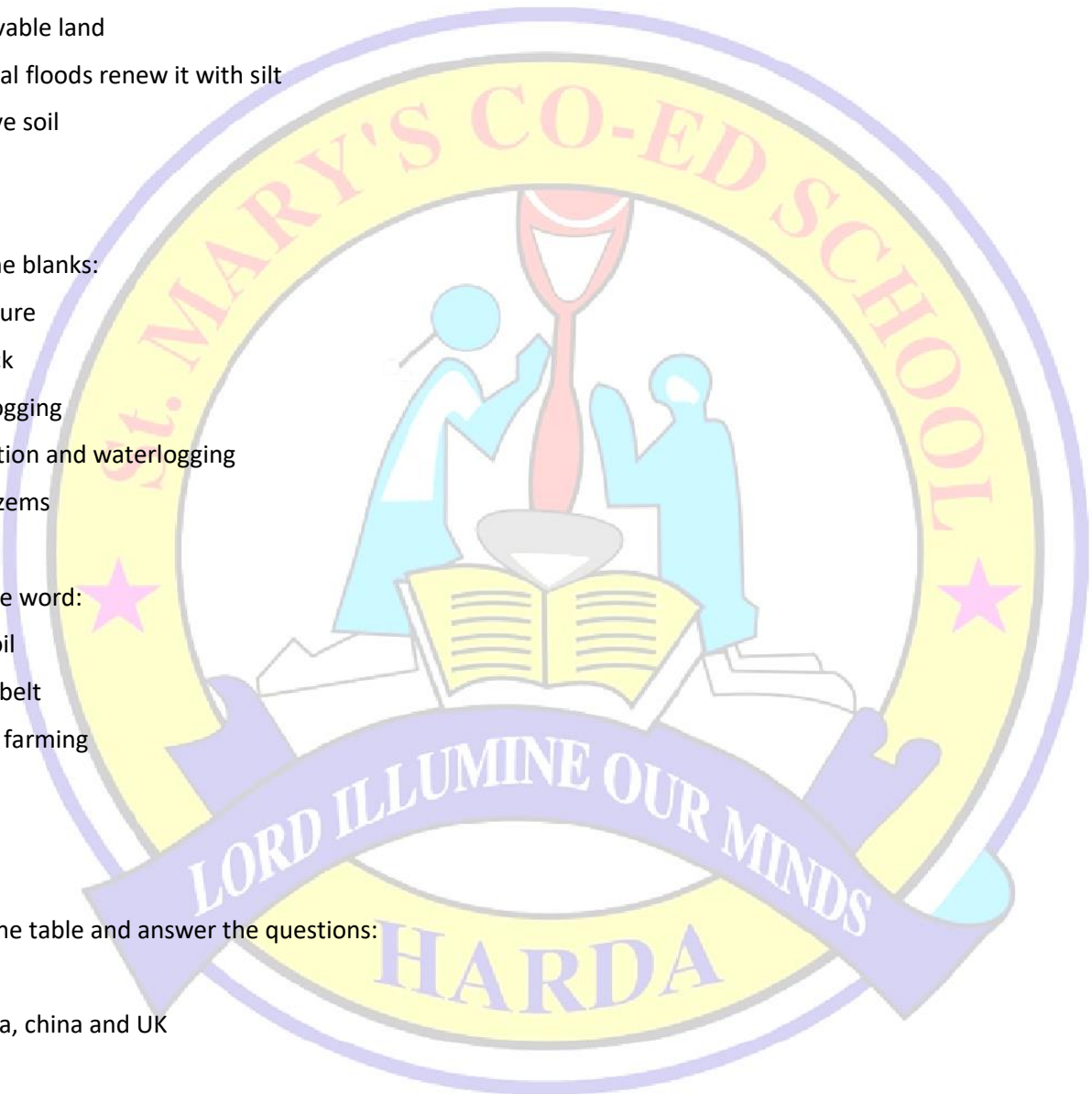
D. Study the table and answer the questions:

1. Japan
2. Australia, china and UK
3. France

E. Short answers:

1. Land resources are important because land has many uses for us. Land is used for different purposes such as cultivation of crops, forestry, grazing livestock, construction of buildings, houses, canals and for mining and manufacturing. It is called a limited resource as a large percentage of the land is not habitable.

2. Physical factors like topography, soil, climate, water, distribution of rocks and minerals are important determinants of land use pattern. For example, flat land with abundant water and rainfall is most suited for growing crops, such as areas of northern India, West Bengal and the Deccan plateau.



3. The various measures adopted for soil conservation are:

1. Practice of terrace farming and contour ploughing is done in the mountains areas.
2. Control of the wasteful practice of slash and burn cultivation in North-east states of India.
3. Changing agricultural practices and practicing strip cropping, nitrogen fixing by crop rotation, multiple cropping and intercropping.
4. Control of deforestation, promoting planting trees and plugging of gullies.

4. The factors that affect soil formation are:

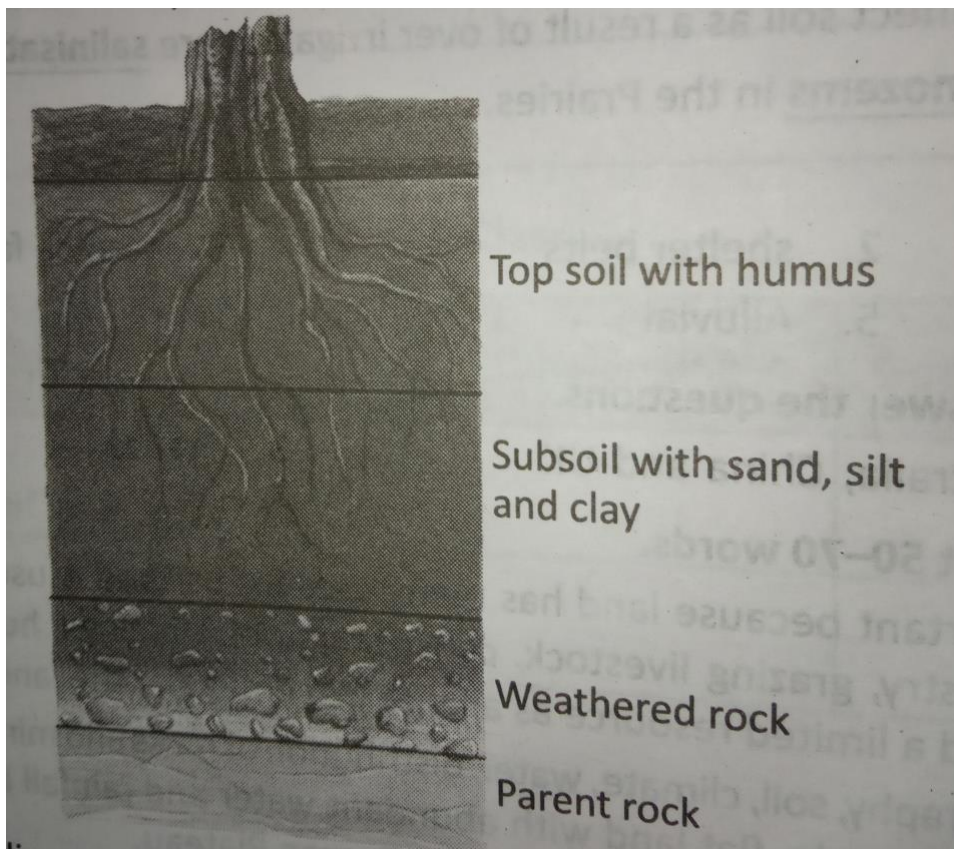
1. Nature of the parent rock from which the soil is derived, determines the physical and chemical composition Of the soil.
 2. Relief or topography which affects the drainage of the area. Soils are very thinly spread over mountain slopes and accumulate in deep layers in the lowlands.
 3. The temperature and precipitation are significant. Frequent changes in temperature can lead to quicker soil formation.
 4. Time is important in determining the depth of the soil and it's age.
 5. Organisms present in the soil help to add humus, thereby increasing the water retention capacity of these soil.
5. The main causes of land degradation are deforestation, overgrazing, agricultural mismanagement, establishment of industries and urbanisation. Large parts of India, Pakistan, Egypt and USA suffer from waterlogging and scarcity. Over 2 million hectares of land in the world is degraded due to improper waste disposal and landfills. One- third of the earth's land area (50 million sq km) had been affected by desertification, especially in Asia, Africa, Latin America, North America and in the Mediterranean region.

F. Long answers:

1. Two types of erosion are gully erosion and sheet erosion. When eroded channels formed in the absence of vegetation by the agents of erosion, like rain, wind and running water takes place, it is known as gully erosion. When a thin layer of topsoil is removed extensively by the action of the wind or running water, it is known as sheet erosion.

Erosion and deforestation are related to each other. Deforestation of soil leads to making the soil infertile and loose. This loose soil can be easily carried away by wind and running water. The removal of the top layer of the soil causes soil erosion.

2. A soil layer is a section showing successive layers of soil which would appear if you cut straight into the soil. Soils are generally formed in layers. Soils have four main layers - top soil, which is made of humus, subsoil, which is made of sand, silt and clay, weathered rock and parent rock.



3. Two types of soil in India are:

A. Alluvial soil-

Areas- it is found in northern plains and deltas in South India.

Characteristics- Clay, silt and sand, very fertile.

Crops grown- Rice, wheat, sugarcane, cotton, oilseeds and pulses.

B. Black or Regur soil-

Areas- North West of peninsular India, valleys of Godavari, Krishna, Narmada and Tapi, Maharashtra, Gujarat, Andhrapradesh, madhyapradesh, chhattisgarh and Tamilnadu.

Characteristics- moisture retentive, sticky when wet and cracks when dry. This aerates the soil.

Crops grown- Cotton, sugarcane, tobacco and oil seeds.

4. Land use pattern is determined by physical, human, cultural and factors.

Physical factors like topography, soil, climate, water, distribution of rocks and minerals are important determinants of land use. For example- flat land with abundant water and rainfall is most suited for growing crops, such as areas of northern India, west Bengal and deccan plateau. Human and economic factors, such as development, education, medical facilities and government policies, play a vital role in changing the pattern of land use. Urban areas provide better job facilities, economic growth, higher education, recreational facilities and thus are more developed. These urban areas need more land for settlements, setting up of industries and other purposes, which increase the pressure on land. As a result, more and more agricultural land is getting converted into urban colonies. With the increase in world population, especially in Asia and Africa, the pressure on land also increasing rapidly. More forests and grasslands are getting converted into urban lands.

5. Terrace farming is the practice of cutting steps in the slopes to provide flat land for cultivation and check the soil erosion.

Contour ploughing is ploughing of the land along the contour in a parallel way instead of up and down the slope. This checks soil erosion by run off. Practice of terrace farming and contour ploughing is done in the mountainous areas. The activity of sowing in the space between the rows of one crop with another crop instead of leaving it uncultivated is an effective means of protecting the soil, is called strip cropping.

Links related to this chapter:

<https://youtu.be/6pbdqm40KFw>

<https://youtu.be/562ml0WnKX0>

