

# NCERT MOST IMPORTANT QUESTIONS CLASS – 11

## GEOGRAPHY GEOGRAPHY-INDIA PHYSICAL ENVIRONMENT CHAPTER- 6 SOIL

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### **Question 1.**

**What are the characteristics of laterite soils?**

**Answer:**

1. The laterite soils are brick coloured.
2. These are shallow, acidic and less fertile.
3. these less fertile due to leaching of soil.
4. These are poor in nitrogen, potash but rich in iron. This is found in Tamil Nadu.

### **Question 2.**

**What is the parent material of soil?**

**Answer:**

The soils are formed due to the weathering and erosion of rocks exposed on the surface. The material which has undergone weathering and erosion and had contributed to soil formation is known as the parent material. The type and nature of parent materials play a vital role in determining the properties of soil.

### **Question 3.**

**What is contour ploughing?**

**Answer:**

The method of tilting or ploughing hillsides or sloping lands among the contour lines, that is, around rather than up and down a slope mainly with a view of conserving soil and water.

### **Question 4.**

**How can we improve the fertility of soils?**

**Answer:**

The fertility of the soil means the presence of humus contents and enough soil nutrients which provides nourishment to the plants. To improve the fertility of the soil following methods should be used:

### **Question 5.**

**Distinguish between soil erosion and soil conservation.**

**Answer:**

## Soil erosion

## Soil conservation

(1) It is black in colour and hence called black soil.

(1) It is yellow in colour.

(2) It is formed by the decomposition of lava.

(2) It is formed by leaching in tropical areas.

(3) It is suitable for the cultivation of cotton.

(3) It is suitable for millets.

(4) It is found in Deccan plateau.

(4) It is found over a low plateau in Bihar.

### Question 6.

**Describe the areas affected by soil erosion. What are the factors responsible for it? Suggest measures to conserve it.**

#### Answer:

The areas affected by the soil erosion are West Bengal, Uttar Pradesh, Madhya Pradesh, Maharashtra, Tamil Nadu, Karnataka, Delhi, Rajasthan and many other parts of India.

1. Potato cultivation in the region of Meghalaya and Nilgiri hills causes soil erosion.
2. Clearing of forests in the Himalayas and on the Western Ghats.
3. Excessive grazing by cattle on the slopes of hills causes rapid soil erosion.
4. On steep slopes due to running water soil-erosion increases.
5. Strong winds cause soil erosion. They blow away soil in dry areas.
6. Heavy rainfall causes soil-erosion.
7. Jumping by the tribal population in different parts of the country have caused considerable depletion of the soils.
8. Deforestation causes soil erosion.

The followings are the measures to conserve the soils:

1. By scientific use of land.
2. Crop-rotation, contour ploughing and bunding.
3. Afforestation in the upper reaches of river basins.
4. Increased use of organic manures.
5. Construction of water barriers against gullies in wet regions.
6. Replacing flood irrigation by sprinklers and drip irrigation.

### Question 7.

**Write a short note on Arid soils and Saline soils.**

#### Answer:

Arid soils – Arid soil is red to brown in colour. They are generally sandy and alkaline. In some areas, the salt content is so high that common salt is obtained by evaporating the saline water. In a dry climate, due to high temperature and accelerated evaporation. They lack moisture and humus content is normal. Lower horizons of soils are occupied by

Kankar due to increased calcium downward. This type of soil is found in Rajasthan where desert topography is found. These soils contain less humus and organic matter. These are suitable for Jowar, Bajra, Ragi and oilseeds, etc.

Saline soils – These are known as Usara soils. It contains a larger portion of sodium, potassium and magnesium. It is poorly fertile. These require more salts largely because of the dry climate and poor drainage. These are found in arid and semi-arid regions and water-logged and swampy areas. Its structure ranges from sandy to loamy. It lacks nitrogen and calcium. Saline soils are found in the region of western Gujarat, deltas of the eastern coasts and Sunderban area of West Bengal. With the excessive use of cultivation and irrigation, the fertile alluvial soils are becoming saline.

### **Question 8.**

**Describe the major characteristics and distribution of the soils in India.**

**Answer:**

Characteristics and distribution of soils in India:

1. Alluvial soil – It is fine silt deposited in the plains by rivers, brought from the mountain regions. It is very fertile and famous for agriculture. Relatively fine and new soil of the flood plains and deltas is known as Khadar and older deposits as Bangar. Great plains of the north and deltas of peninsular rivers abound in alluvial soil.
2. Black soil – Black soil is made of volcanic rocks of lava flows. The soil is fertile and clayey. It can maintain moisture for long periods. Due to black in colour, it is said to be black soil. Cotton is grown abundantly in this soil. Locally it is named as regur soil. Gujarat, parts of M.P. and Maharashtra have black soil over large areas.
3. Red soil – Red soil has developed on the crystalline igneous rocks. They are less fertile but with the help of manures and fertilisers, good crops are raised in it. Relatively hot and dry parts of southern and eastern peninsula abound in red soils.
4. Laterite soil – Due to heavy rains fertile portion of the soil has been washed away leading to leaching. Hence the soil is infertile. Hilly regions of Western Ghats and Chhotanagpur plateau with heavy rainfall and hot weather are represented by this type of soil.
5. Mountain soils are found in the Himalayan region. They are good for tea growing. Desert soil is found in Rajasthan. They are sandy and do not produce any significant crop.

### **Question 9.**

**Discuss the type of physical conditions leading to the formation of peaty and organic soils.**

**Answer:**

The peaty and organic soils are found in the areas of heavy rainfall and high humidity, where there is a good growth of vegetation. A large amount of dead organic matter accumulates in these areas and this gives rich humus and organic content to the soil. Hence, they are peaty and organic soils. Organic matter in these soils may go even up to 40 to 50%.

These soils are normally heavy and black in colour. They occur widely in the northern part of Bihar, the southern part of Uttaranchal and coastal areas of West Bengal, Orissa and Tamil Nadu. Such soils are used for cultivation of high and less soil exhaustive crops.

**Question 10.**

**(a) So long a balance exists between the processes of soils formation and soil erosion, there is no nutrient, but when the balance has distributed the erosion of the soil becomes a menace. Comment.**

Answer:

The removal of soil by running water and the erosion process of running water and wind are continuous. Generally, there is a balance between these two processes. The rate of removal of fine particles from the surface is the same as the rate of addition of particles to the soil layer. Sometimes such a balance is distributed by natural or human factors, leading to a greater rate of removal of soil. When this happens, the entire soil layer may be removed in a few years.

Indiscriminate felling of trees, careless overgrazing of pasture lands, unscientific drainage operations and improper land use are some of the important causes which upset this balance.

**(b) What are ravines? How are they different from gullies?**

**Answer:**

Ravines: A ravine is a small narrow valley with steep sides, larger than a gully, but smaller than a canyon.

A gully, on the other hand, is a narrow channel worn in the earth by water. It is especially a miniature valley resulting from a heavy downpour of rain. Further erosion and deepening of a gully leading to the formation of a ravine.