NCERT SOLUTIONS

CLASS - 11th



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Class : 11th

Subject : Geography

Chapter : 6

Chapter Name : Soils

Q1 Choose the right answer from the four alternatives given below.

(i) Which one of the following is the most widespread and most productive category of soil?

(a) Alluvial Soil

(b) Laterite Soil

(c) Black Soil

(d) Forest Soil

(ii) 'Regur Soil' is another name for the.

(a) Saline Soil

(b) Arid Soil

(c) Black Soil

(d) Laterite Soil

(iii) Which one of the following is the main reason for the loss of the top soil in India?

(a) Wind erosion

(b) Water erosion

(c) Excessive leaching

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(d) None of these

(iv) Arable land in the irrigated zones of India is turning saline due to which of the following reasons?

(a) Addition of gypsum

(b) Over grazing

(c) Over irrigation

(d) Use of fertilisers

Answer.

(i) (a) Alluvial Soil

(ii) (c) Black Soil

(iii) (a) Wind erosion

(iv) (c) Over irrigation

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Q2 Answer the following questions in about 30 words.

(i) What is soil?

(ii) What are the main factors responsible for the formation of soil?

(iii) Mention the three horizons of a soil profile.

(iv) What is soil degradation?

(v) What is the difference between Khadar and Bhangar?

Answer.

(i) The mixture of organic materials and rock debris which develop on the surface of the earth is Soil. Humus, mineral particles, air and water are some of the components of soil.

(ii) Parent material, relief, vegetation, climate, different forms of life and time are factors responsible for soil formation.

(iii) The three horizons of soil profile are:

- Horizon A: It is topmost zone where organic material are incorporated with mineral matter, water and nutrients necessary for the plant's growth.
- Horizon B: It is transition zone between Horizon A and C.
- Horizon C: It consists of loose parent material.

(iv) The decline in fertility of soil if its nutritional status declines and soil's depth grows due to erosion & misuse is called soil degradation.

(v) The two types of alluvial soils are : Khadar and Bangar.

Khadar is the new alluvial soil deposited by the flood that enriches the soil by depositing fine silts.

Bangar is the old alluvial soil and these are deposited away from the flood plains.

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Q3 Answer the following questions in not more than 125 words.

(i) What are black soils? Describe their formation and characteristics.

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(ii) What is soil conservation? Suggest some measures to conserve soil.

(iii) How do you know that a particular type of soil is fertile or not? Differentiate between naturally determined fertility and culturally induced fertility.

Answer.

(i) The other names of Black Soil are ‘Black Cotton Soil’ or ‘Regur Soil.’ It covers Deccan plateau which consists of states such as Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh and few parts of Tamilnadu.

These types of soil are formed due to weathering of igneous rocks and cooling of lava after the process of volcanic eruption. Its characteristics are:

- They are impermeable, clayey and deep.
- They contain potash.
- When wet, they become sticky and clayey. Once dried, they shrink.
- They are rich in magnesium, lime, alumina and iron.
- They are of deep grey or black colour.

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(ii) The methods adopted to maintain the soil’s fertility, prevent its degradation and erosion is called soil conservation. Few methods to conserve the soil are:

- Govt should encourage afforestation.
- The Govt should educate people regarding conservation of soil and consequences of overgrazing and deforestation.
- The agro-forestry and shelter belt of trees should be developed in semi arid and arid regions. Effort needs to be taken to protect these lands from encroachment of sand dunes.
- Those lands where crop cultivation is not possible, they should be converted into pasture lands where cattle can graze.
- To reduce surface flow, counter tracing should be done in sloppy area.
- Gully erosion should be prevented and their formation needs to be controlled.

(iii) The ability of the soil to support the growth of plants is known as fertility. By testing the soil sample, we can get to know about the fertility of a type of soil. We need to know about its external features such as slope of land, texture, colour, moisture content, etc. The fertility

present in a given soil-type naturally is known as its naturally determined fertility. Few soils have nutrients such as Calcium, Phosphorous, Potassium, Nitrogen and humus content naturally present. If one adds manures and fertilizers to soil, it becomes more fertile.

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