

Ch:RESOURCE AND DEVELOPMENT

READ THE FOLLOWING QUESTIONS AND ANSWERS THOROUGHLY AND TRY TO UNDERSTAND AND WRITE IN YOUR H.W.COPY.

Question 1.

Write the main characteristics of alluvial soils.

Answer:

1. Alluvial soils as a whole are very fertile. They consist of various proportions of sand, silt and clay.
2. They contain adequate proportion of potash, lime and phosphoric acid. They are ideal for the growth of sugarcane, paddy, wheat and other cereal and pulse crops.
3. Due to its high fertility, regions of alluvial soils are intensively cultivated and are densely populated.
4. Soils in the drier areas are more alkaline and can be productive after proper treatment and irrigation.

Question 2.

Give the distribution of alluvial soils in brief.

Answer:

The entire northern plains are made up of alluvial soils.

- These have been deposited by three important Himalayan river systems
- the Indus, Ganga and Brahmaputra.
- These soils also extend into Rajasthan and Gujarat through a narrow corridor.
- These are also found in the eastern coastal plains in the deltas of the Mahanadi, Godavari, Krishna and Kaveri rivers.

Question 3.

Write two factors which are responsible for the formation of black soils. Name four States where they are found. Name the crop mainly grown in it.

Answer:

Two factors are:

1. The climatic conditions
2. The parent rock material.

Four states in which black soils are found are: Maharashtra, Gujarat, Madhya Pradesh and Chhattisgarh. Black soil is ideal for growing cotton and is also called black cotton soil.

Question 4.

Write six characteristics of regur soils (black soils). (2015)

Answer:

1. They are made up of extremely fine, i.e. clayey material.
2. They have capacity to hold moisture that makes them ideal for growing cotton.
3. They are rich in soil nutrients such as calcium carbonate, magnesium, potash and lime.
4. These soils are generally poor in phosphoric contents.
5. They develop deep cracks during dry hot weather, which helps in the proper aeration of soil.
6. These soils are sticky when wet and difficult to work unless tilled immediately after the first shower.

Question 5.

Give the distribution of black/regur Soil. (2015)

Answer:

This soil is typical of the Deccan Trap region.

- It is spread over north west Deccan plateau and is made up of lava flows.
- This soil covers the plateaus of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarhi and extends along the Godavari and Krishna Valleys.

Question 6.

In what broad category do the soils of Maharashtra fall? (2014)

Answer:

Black soil region also known as regur soils.

Question 7.

What is regur soil? Write its two features. Mention any two regions where regur soil is found.

Answer:

Regur soil is soil which is made up of extremely fine, i.e., clayey material.

Features:

1. They have capacity to hold moisture that makes them ideal for growing cotton.
2. They are rich in soil nutrients such as calcium carbonate, magnesium, potash and lime.
3. These soils are generally poor in phosphoric contents.
4. They develop deep cracks during dry hot weather, which helps in the proper aeration of soil.
5. These soils are sticky when wet and difficult to work unless tilled immediately after the first shower.

Regions where regur soil is found:

1. This soil is typical of the Deccan Trap region.

2. It is spread over north west Deccan plateau and is made up of lava flows.
3. This soil covers the plateaus of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarh and extends along the Godavari and Krishna Valleys.

Question 8.

Write the distribution of red and yellow soils. Give reasons for their colour.

Or

How does red soil develop and in which part of India? What makes it look red and yellow?

Answer:

In Eastern and Southern parts of Deccan plateau, red soils have developed on crystalline igneous rocks in areas of low rainfall. They are also found in parts of Orissa, Chhattisgarh, Southern parts of the middle Ganga Plains and along the piedmont zone of Western Ghats.

These soils develop a reddish colour due to diffusion of iron in crystalline and metamorphic rocks. It looks yellow when it occurs in a hydrated form.

Question 9.

Write four characteristics of laterite soils. Why are they called laterite?

Answer:

1. They are highly leached soils.
2. They develop in areas of heavy rainfall and high temperature.
3. They have low 'humus' content, because most of the micro-organisms particularly decomposers like bacteria get destroyed due to high temperature.
4. These soils can be cultivated with adequate doses of manure and fertilisers. The word laterite has been derived from the Latin word 'late' which means brick. Since their colour is red and resembles brick colour, these soils are called laterite soils.

Question 10.

Write six states which have laterite soils and name the important crops which grow well in these soils.

Answer:

Six states in which laterite soils are found: Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and the hilly areas of Orissa and Assam.

Crops which grow well in these soils are: tea, coffee and cashew-nuts.

Question 11.

Write the main characteristics of arid soils. (2014)

Answer:

1. Arid soils range from red to brown in colour.
2. They have a sandy texture.
3. They are saline in nature. In areas where salt content is high, common salt is obtained by evaporation.

4. Arid soil lacks humus and is moisture deficient.
5. The lower horizons of the soil have kankars because of high calcium content which restrict infiltration of water.
6. Proper irrigation helps make these soils cultivable, e.g., Western Rajasthan.

Question 12.

Write the main features of forest soils. What are the different types of soils found in the hilly forested areas?

Answer:

Forest soils are mainly found in the hilly and mountainous areas where sufficient rain forests are available. The soil texture varies according to the mountain environment where they are formed. At least four types of soils can be seen in the hilly forested areas:

1. They are loamy and silty in valley sides.
2. They are coarse grained in upper slopes.
3. They are highly denuded, acidic with low humus content in the snow covered areas.
4. They are very fine and fertile in lower parts of the valley and on river terraces.

Question 14.

What is soil erosion? Write the main causes of soil erosion.

Answer:

The denudation of the soil cover and subsequent washing down is described as soil erosion.

The process of soil formation and erosion goes on simultaneously and generally there is a balance between the two. This balance is sometimes disturbed, leading to soil erosion. The main activities like deforestation, over-grazing, construction and mining and also natural agents like wind, running water and glacier are the main causes of soil erosion.

Question 15.

Explain three types of soil erosion mostly observed in India. Mention human activities that are responsible for soil erosion. (2012)

Answer:

1. Gully erosion
The running water cuts through the clayey soils and makes deep channels, called gullies. They make the land unfit for cultivation. Such lands are called 'Badlands'.
2. Sheet erosion
Sometimes water flows as a sheet over large areas down a slope. In this case top layer of the soil is washed away.
3. Wind erosion
Wind blows off loose and dry soil from flat and sloping land causing erosion.

Question 16.

Write the land area degraded by gully erosion and name five states where gully erosion is very pronounced.

Answer:

Approximately 40 lakh hectares of land area has degraded due to gully erosion. Five states where gully erosion is quite pronounced are: Uttar Pradesh, Madhya Pradesh, Bihar, Rajasthan and Gujarat.

Question 17.

Write four methods of soil conservation.

Answer:

Methods of soil conservation:

1. Contour ploughing By ploughing along the contour lines, water will not run down the slopes.
2. Terrace cultivation Steps can be cut on the slopes to make terraces. This restricts erosion.
3. Strip cropping Large fields can be divided into strips. Strips of grass are left to grow between the crops. This breaks the force of the wind.
4. Planting of shelter belts The planting of trees in rows to create shelter also breaks the force of the wind and restricts soil erosion.
Shelter belts have helped in the stabilisation of sand dunes and deserts.

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QUICK RESOURCES
