MT EDUCARE LTD.

ICSE X SUBJECT : **GEOGRAPHY**

Soils in India

STEP UP ANSWER SHEET

A.1.

(a) **Transported Soil :** If a soil is carried elsewhere by the agents of gradation from the place of its origin, it is called transported soil e.g.- Alluvial soil.
In Situ Soil : If the soil remains at the place of its origin, it is called in situ e.g. Black soil.

(b)

Khadar	Bhangar
1. Clayey	1. Siliceous.
2. Replensihed by floods therefore more fertile.	2. Not replenished hence less fertile.

(c) Laterite Soil is formed by leaching in the region of alternate wet and dry spells.
Disadvantage : It is acidic in nature and cannot retain moisture.

(d) With reference to Red Soil :
(i) Tamil Nadu and Karnataka.
(ii) **Advantages :**
(1) It has high iron oxide content and potash.
(2) It becomes productive with fertilizers.
(iii) Important crops are rice, millets and sugarcane.

[2013]

A.2.

(a) (i) Terrace firming.
(ii) Planting shelter belts to check the speed of wind in the dry areas.

(b)

Alluvial soil	Red Soil
1. Alluvial soil is transported soil.	1. Red soil is residual (situ)
2. Alluvial soil is highly moisture retentive.	2. Red soil is not highly moisture retentive.

(c) (i) Factors affecting soil formation are climate, vegetation, parent rock, relief and slope of the land. India has varied relief features, land forms, climatic realms and vegetation types. These have led to the development of a variety of soils in the country.
(ii) Black soil contains lime, alumina, iron, potash, magnesium and calcium and also retains moisture which helps the growth of cotton plants.

(iii) As the soil helps us to get most of our food and clothing directly or - indirectly and also ensures agricultural prosperity of a country, availability of soil is most critical. Retaining of this valuable resource by way of soil conservation is important and essential.

(d) (i) Laterite soil (ii) Alluvial soil (iii) Laterite soil

[2014]

A.3.

(a) (i) Black soil is suitable for crop cultivation as it is clayey in nature and has high water holding capacity. Moreover it is rich in lime, iron, magnesium, and is fertile in nature.

(ii) Red soil is suitable for crop cultivation as it is rich in potash and iron. Red soils respond well to irrigation and fertilizers and can thus be made suitable for crop cultivation.

(b) (i) Leaching

(ii) Gully erosion

(c) (i) Pedogenesis refers to the process of soil formation. Soils are derived by the weathering of parent rock materials which combine with decomposed vegetal and animal remains which adds to the fertility of the soil.

(ii) Humus refers to the organic matter present in the soil. It mainly comprises of dead and decomposed plant and animal remains, which adds to the fertility of the soil.

(iii) Bhangar refers to the old alluvial soil found about 30m above sea level in river terraces. It is light grey in colour and consists of calcareous clay.

(d) (i) Alluvial soil is extremely fertile because it is rich in various minerals such as potash humus and lime. Moreover it is clayey in nature and has high water holding capacity. This makes it suitable for the cultivation of various types of crops.

(ii) Soil conservation is necessary as the removal of the top soil layer results in loss of fertility, decreasing soil moisture, drying of vegetation and increase in the frequency of floods and droughts.

(iii) reafforestation should be practised extensively in order to compensate for the large scale deforestation occurrung because of industrialization and other factors, which certainly result in soil erosion and land degradation.

[2015]

A.4.

(a) Soil erosion is the removal of top soil by different agents of weathering like running water, wind , overgrazing etc.
The two steps to prevent soil erosion are :
- Afforestation
- Improve techniques of agriculture

(b) The two similarities are both the soils are of red colour due to the presence of iron ore. The soils also responds well to irrigation and manuring.

(c) (i) The riverine alluvium brought down by the river Sutlej, Yamuna Ganga are coarse in nature. It is derived from the disintegration of rocks. The deltic alluvium are sandy and finer in nature. By the time the gravels are brought down to the flood plains they become finer in nature.
(ii) The black soil can hold moisture so it does not get leached.
(iii) Khadar is more fertile than Bhangar as Khadar gets replenished by the annual flood. So new soil is added to Khadar which makes it fertile.

(d) **(i) Sheet Erosion :** Due to heavy rains a surface film of water carries away the even surface layer of the top soil as it moves.
(ii) Soil Conservation : Soil Conservation is an effort, made by man to prevent soil erosion to retain the fertility of the soil.
(iii) In situ Soil : These soils are formed where they are found. For example Black Soil.

[2016]

A.5.

(a)

Alluvial Soil	Black Cotton Soil
1. Transported soil. Brought down by the agents of erosion.	1. Residual soil. Formed by denudation of lava rocks.
2. They are pale brown in colour.	2. Black soils vary in colour from deep black to chestnut brown.
3. These are replenished by floods during rainy season.	3. These soils are formed in situ.
4. They are found in the flood plains and delta regions.	4. They are found in the Deccan Trap region.

(b) (i) North-Eastern States like Arunachal Pradesh and Meghalaya.
(ii) Chambal ravines.

(c) Soil conservation is an effort, made by man to prevent soil erosion to retain the fertility of the soil.
   (i) Arid and semi-arid region : Belts of tree and shrubs should be planted to check the velocity of wind and thus prevent soil erosion.
   (ii) River valleys prone to flood :
      (1) Constructing dams and barrages would check the speed of water and save the soil from erosion.
      (2) Afforestation.

(d) (i) Aluvial soil/Black soil.
   (ii) Laterite soil.
   (iii) Alluvial soil.

[2017]

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