INDIAN SCHOOL AL WADI AL KABIR

Class: X	Department: Social Science	Sub: Geography
Chapter-1 Question Bank:1	Topic: Resources and Development	Year: 2022-2023

Q. 1 What are Resources? Give two examples.

Ans. Everything available in our environment which can be used to satisfy our needs, provided, it is technologically accessible, economically feasible and culturally acceptable can be termed as Resource. Coal, water, air, minerals, etc. are some examples of resources.

Q. 2. What is the role of humans in resource development? OR
Resources are the functions of human beings' Justify the statement

Ans.

i) Human beings interact with nature through technology, and create institutions to accelerate their economic development.
ii) Human beings themselves are essential components of resources.
iii) They transform the material available in our environment into resource, and use them.

Q.3. Do you think that resources are free gifts of nature as is assumed by many? Justify your answer with any three suitable arguments. [CBSE 2012]

Ans. They are not free gifts of nature as:

i) Resources are a function of human activities.
ii) Human beings themselves are essential components of resources.
iii) They transform material available in our environment into resources and use them. For example river is a natural resource but river become a resource when its water is used for irrigation or power production.

Q. 4. Which soil is well known for its capacity to hold moisture? Give reason.

Ans. Black soil. As black soil is made up of extremely fine clayey material.

Q. 5. What is strip cropping?

Ans. Under strip cropping, large fields are divided into strips and different types of crops are grown on alternative strips along contours or across the prevailing direction of winds. This breaks up the force of the wind.

Q. 6. What is leaching? Name the soils which develop due to leaching.

Ans. Leaching is a process by which the nutrients in the soil are washed away by heavy rains. Laterite soils develop due to leaching.

Q. 7. Discuss the problems which have been caused due to over utilization of resources

Ans.

i) Depletion of resources:- Overutilization has led to the depletion of the resources for meeting the greed of few individuals. For example, over utilization of petroleum products has led to a situation where most of the countries of the world are facing energy crisis.
ii) Concentration of resources:- This has divided the society into haves and have not or the rich and the poor.
iii) Global ecological crisis:- Over-utilization of resources has led to the global ecological crisis such as global warming, depletion or ozone layer, pollution and land degradation.

Q. 8. How over irrigation and mining leads to land degradation?

Ans.

i) Over irrigation is responsible for land degradation due to water logging which leads to increase in salinity and alkalinity in the soil.

ii) The minerals procession like grinding of limestone for cement industry and calcite and soapstone for ceramic industry generate huge quantity of dust in the atmosphere. It retards the process of infiltration of water into the soil after it settles down on the land.

Q.9. Explain the major factors which are responsible for the formation of soil.

Ans.

i). Relief, parent rock or bed rock, climate, vegetation and other forms of life and time are important factors in the formation of soil.

ii) Various forces of nature such as change in temperature, actions of running water, wind and glaciers, activities of decomposers, etc. contribute to the formation of soil.

iii). Chemical and organic changes which take place in the soil are equally important.

iv) Soil also consists of organic (humus) and inorganic materials.

Q. 10. Humus content of the laterite soil is very low. Explain by giving two reasons

Ans.

i) The soil is formed due to intense leaching. So the nutrients of the soil are washed away by heavy rains.

ii) The soil is formed in the regions of high temperature. So most of the micro-organisms, particularly the decomposers, like bacteria, get destroyed.

Q. 11. Why is there a need to conserve resources? What was Gandhi's opinion regarding the conservation of resources?

Ans.

i). Most of the resources have limited supply.

ii). Overutilization of resources may lead to environmental problems.

iii). Overutilization of resources may lead to socio-economic problems.

Gandhi ji was very apt in voicing his concern about resource conservation. He said, "*There is enough for everybody's need, and not for anybody's greed."* According to him, it was the greedy and selfish individuals who were responsible for depletion of resources. He was in favour of producing for the masses than mass production.

Q. 12. How is land a natural resource of utmost importance? Explain with four facts.

Ans.

i) . All economic activities are performed on land.

ii). It supports natural vegetation and wildlife.

iii). Most of the minerals are formed in land.

iv). It is used for transport and communication system.

Q.13. The pattern of net sown area varies greatly from one state to another. It is over 80% of the total area in Punjab and Haryana and less than 10% in Arunachal Pradesh, Mizoram, Manipur and Andaman Nicobar Islands. Find out reasons for the low proportion of net sown area in these states.

Ans. Reasons for the low proportion of net sown area in Arunachal Pradesh, Mizoram, Manipur and Andaman Nicobar Islands are as follows:

i) Mostly tribal group lives in this region. Even today they practice shifting cultivation.
ii) These states are covered by dense tropical forests.
iii) These states receive very heavy and a large amount of rainfall.
iv) The topography and soil types are not favourable for the cultivation.
v) Farmers or peasants are economically poor and do not have access to technological resources.

Q. 14. Distinguish between Khaddar and Bhangar.

Ans. Khaddar (New)

i). The Khaddar soils are found in the low areas of the valley bottom of a valley which are flooded every year.
ii). These soils are finer in texture. Light in colour.
iii). The khaddar soils are more fertile as these are found in the low areas of bottom of a valley which are flooded almost every year.

Bhangar (Old)

i). The Bhangar soils are found in the higher reaches, about 30 m above the flood level.
ii). These are coarse in texture. (Kankar).Dark in colour.
iii). These soils are less fertile as these are found on the higher reaches, about 30 m above the flood level.

Q.15. Mention any five characteristics of black soil.

Ans.

i) The black soils are made of extremely fine materials i.e., clayey materials.
ii) These soils are rich in soil nutrients such as calcium carbonate, magnesium carbonate, potash and lime.
iii) These soils are generally poor in phosphoric content
iv) The soil is well known for its capacity to hold moisture.
v) They develop deep cracks during hot weather, which helps in the proper aeration of the soil.
vi) These soils are sticky when wet and difficult to work on unless tilled immediately after the first shower

Q. 16. Explain the red and yellow soils on the basis of the following:

Ans. I) Where are they developed? – Red soil develops on crystalline igneous rocks in the areas of low rainfall in the eastern and southern parts of the Deccan plateau.

II) Distribution: Red and Yellow soils are also found in parts of Orissa, Chhattisgarh, southern parts of the middle Ganga plain and along the piedmont zone of the Western Ghats.

III) Why does the red soil appear reddish and yellow in colour? - 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.

Q. 17. Explain the forest soils on the basis of the following:

I**) Areas-** Found in the hilly and mountainous areas where sufficient rain forests are available. These soils are heterogeneous (diverse) in nature, and their character changes with mountain environment and altitude.

II) Soil Texture: The soils texture varies according to the mountain environment where they are formed. They are loamy and silty on valley sides and coarse grained on the upper slopes.

III) Other Features :-

a) In the snow covered areas of Himalayas, these soils experience denudation and are acidic with low humus content.

b) The soils found in the lower parts of the valley particularly on the river terraces and alluvial fans are fertile.

Q. 18. Mention any five features of the arid soils.

Ans.

i) The soil range red to brown in colour.

ii) The soils contain considerable amount of soluble salts.

iii) The soils contain low percentage of organic matter due to dry climate and absence of vegetation.

iv) The soil is alkaline in nature as there is not rainfall to wash soluble salts.

v) The soils are infertile but with irrigation and fertilizers, the drought resistant and salt tolerant dry crops such as barley, cotton, wheat, millets, maize, pulses, etc. are grown.

The lower horizons of the soils are occupied by Kankar because of the increasing calcium content downwards. The Kankar layer formations in the bottom horizons restrict the infiltration of water.

After proper irrigation these soils become cultivable as has been in the case of western Rajasthan.

Q 19. Write important features of laterite soil .

Ans: i) The laterite soil develops in areas with high temperature and heavy rainfall.

ii)This is the result of intense leaching due to heavy rain.

iii)Humus content is low due to micro-organisms particularly the decomposers ,like bacteria, get destroyed due to high temperature.

iv)Laterite soils are suitable for cultivation with adequate doses of manures and fertilizers.

v) These soils are found in Karnataka, Kerala, Tamil Nadu, hilly areas of Orissa and Assam. This soil is useful for growing tea, coffee and cashew nut.

Q20. Which is the most widely spread and important soil of India? State the characteristics of this type of soil.

Ans. Alluvial soil is the most fertile, widely spread and important soil of India.

The main characteristics of this soil type are :

(i) Alluvial soil is riverine soil, transported and deposited by rivers. So they are also called transported soil. Alluvial soil forms the Northern Plains. The soil has been deposited by the three great Himalayan river systems – the Indus, the Ganga and the Brahmaputra.

They are also found in the Eastern Coastal Plains, mainly in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri rivers.

(ii) Alluvial soil consists of various proportions of sand, silt and clay. As we move inland towards the river valleys, soil particles appear bigger in size.

In the upper reaches of the river valley i.e. near the place of break of slope, the soils are coarse. Such soils are more common in piedmont plains such as Duars, Chos and Terai.

iii) According to their age alluvial soil can be classified as old alluvial (Bangar) and new alluvial (Khadar). The bangar soil has higher concentration of kanker nodules than the Khadar. Khadar has more fine particles and is more fertile than the bangar.

(iv) Alluvial is very fertile and regions with alluvial soil are agriculturally most productive and densely

populated.
(v) They mostly contain adequate proportion of potash, phosphoric acid and lime.
vi) This rich soil is ideal for growth of paddy, wheat, sugarcane and other cereals and pulses.
vii) Soils in the drier areas are more alkaline and can be productive after proper treatment and irrigation.

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Q.22. Explain the process of soil erosion.

Ans:

i) The denudation of the soil cover and subsequent washing down is described as soil erosion.
ii) The processes of soil formation and erosion go on simultaneously and generally there is a balance between the two.
iii) Sometimes, this balance is disturbed due to human activities like deforestation, over-grazing, construction and mining etc., while natural forces like wind, glacier and water lead to soil erosion.
iv) The running water cuts through the clayey soils and makes deep channels as **gullies**.
v) The land becomes unfit for cultivation and is known as **bad land**. In the Chambal basin such lands are called **ravines**.
vi) Sometimes water flows as a sheet over large areas down a slope. In such cases the top soil is washed away. This is known as **sheet erosion**.
vii) Wind blows loose soil off flat or sloping land known as wind erosion.
viii) Soil erosion is also caused due to defective methods of farming.
ix) Ploughing in a wrong way i.e. up and down the slope form channels for the quick flow of water leading to soil erosion.

i) **Q.23. Which steps can be taken for soil conservation.**
Ans.
ii) **Afforestation**: Afforestation and proper management of grazing can help to some extent as the grass binds the soil.
iii) **Contour Ploughing:** along the contour lines can decelerate the flow of water down the slopes. This is called contour ploughing.
iv) **Terrace farming:** Steps can be cut out on the slopes making terraces. Terrace cultivation restricts erosion. Western and central Himalayas have well developed terrace farming.
v) **Strip cropping:** Large fields can be divided into strips. Strips of grass are left to grow between the crops. This breaks up the force of the wind. This method is known as strip cropping.
vi) **Shelter belts:** Planting lines of trees to create shelter also helps in soil conservation. Rows of such trees are called shelter belts. These shelter belts have contributed significantly to the stabilization of sand dunes and in stabilizing the desert in western India.

Q 24. Discuss some of the ways to solve the problem of land degradation.
Ans: There are many ways to solve the problems of land degradation.

i) Afforestation and proper management of grazing can help to some extent as the grass binds the soil.
ii) Planting of shelter belts of plants, control on over grazing,
iii) Stabilization of sand dunes by growing thorny bushes are suitable in arid and semi-arid regions. They help in binding the soil with the roots and also reduce the speed of the wind.
iv) Proper management of waste lands, control of mining activities.
v) Proper discharge and disposal of industrial effluents and wastes after treatment can reduce land and water degradation in industrial and suburban areas.

Q 25. How has technical and economic development led to more consumption of resources?
Ans: Technical and economic development led to more consumption of resources on account of various factors:

i) Human beings interact with nature through technology, and create institutions to accelerate their economic development as a result they often consume resources more in quantity.
ii) Technological development also leads to economic development. When the economic condition of a country rises, the needs of the people also rise. It again results into more consumption of resources.
iii) The development of technology contributes to more utilization of resources. For example for a factory, land, minerals, machines are used which means land degradation and depletion of mineral resources of a certain area.

Hence, greater the technical and economic development, the greater the consumption of resources.

Q 26. "Resource planning is essential for sustainable existence of all forms of life." Explain.
Ans:

i) Resource planning is essential for sustainable existence of all forms of life. Sustainable existence is a component of sustainable development.
ii) An equitable distribution of resources has become essential for a sustained quality of life and global peace.
iii) If the present trend of resource depletion by a few individuals and countries continues, the future of our planet is in danger.

Q 27. "Development in India does not only involve the availability of resources but also the technology, quality of human resources and the historical experience of the people." Justify the statement.
Ans. 1.Resources can contribute to development only when they are accompanied by appropriate technological development and institutional changes.
2. The history of colonization reveals that rich resources in colonies were the main attractions for the foreign invaders.
3. It was primarily the higher level of technological development of the colonizing countries that helped them to exploit resources of other regions and establish their supremacy over the colonies.

Q 28. How much land is degraded in India at present? Explain any five human activities which are mainly responsible for land degradation in India.

Ans. Continuous use of land over a prolonged period of time without taking necessary steps to conserve and manage it, has resulted in **land degradation.**

At present there are about 130 million hectares of degraded land in India.

Human activities responsible for land degradation in India are as follows :

(i) In states like Jharkhand, Chhattisgarh, Madhya Pradesh and Orissa deforestation due to mining have caused severe land degradation. Mining sites are dug, drilled or quarried and abandoned after excavation work is over, leaving the land over-burdened and in a highly degraded state.

(ii) Mineral processing like grinding of limestone for cement industry and calcite and soapstone for ceramic industry generate huge quality of mineral dust in the atmosphere which ultimately settles down on the land. It retards the process of infiltration of water into the soil, thus, degrading the land.

(iii) In states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is one of the main reasons for land degradation.

(iv) In Punjab, Haryana and Western Uttar Pradesh over-irrigation is responsible for land degradation. It leads to water logging which in turn increases salinity and alkalinity in the soil and reduces its fertility.

(v) Discharge of industrial effluents and wastes cause pollution and land degradation in industrial regions.