

Section A (Geography)

Q1 Multiple choice questions.

(i) Which one of the following type of resource is iron ore?

- (a) Renewable
- (b) Biotic
- (c) Flow
- (d) Non-renewable

(ii) Under which of the following type of resource tidal energy cannot be put?

- (a) Replenishable
- (b) Human-made
- (c) Abiotic
- (d) Non-recyclable

(iii) Which one of the following is the main cause of land degradation in Punjab?

- (a) Intensive cultivation
- (b) Deforestation
- (c) Over irrigation
- (d) Overgrazing

(iv) In which one of the following states is terrace cultivation practised?

- (a) Punjab
- (b) Plains of Uttar Pradesh
- (c) Haryana
- (d) Uttarakhand

(v) In which of the following states black soil is predominantly found?

- (a) Jammu and Kashmir
- (b) Maharashtra
- (c) Rajasthan
- (d) Jharkhand

Answer.

- (i) (d) Non-renewable**
- (ii) (a) Replenishable**
- (iii) (c) Over irrigation**
- (iv) (d) Uttarakhand**
- (v) (b) Gujarat**

Answer the following questions in about 30 words

Q No. 1:- What are resources?

Answer:- Everything available in our environment which can be used to satisfy our needs, provided it is technologically accessible, economically feasible and culturally accepted can be termed as Resource.

Q No. 1:-Name three states having black soil and the crop which is mainly grown in it?

Ans:- Madhya Pradesh, Chhattisgarh and Maharashtra are the three states having black soil. Cotton is the main crop grown on it.

Q No. 2:-What type of soil is found in the river deltas of the eastern coast? Give three main features of this soil?

Ans:- Alluvial soil is found in the river deltas of the eastern coast.

The three main features of Alluvial soil are:-

- Alluvial soil is rich in potash, phosphoric acid and lime.
- Alluvial soil has a high water retention capacity and
- Alluvial soil is highly fertile soil.

Q No. 3:- What steps should be taken to control soil erosion in the hilly areas?

Ans:-In hilly areas, soil erosion can be controlled by the following methods:-

- *Ploughing across contour-lines,*
- *Making use of terrace farming techniques and*
- *Using strips of grasses to check soil erosion by wind and water.*

Answer the following questions in about 120 words

Q No. 4:-Explain land use patterns in india and why the land under forest not increased much since 1960-61?

Ans:-India has a total geographical area of 32.87 lakh sq. km. As per the land use data, only 93% is available to us. Of this 93%, 43.4% is sown area, 22.6% is forest cover, 4.4% is a culturable waste, 7.3% is current fallow, 4% is pasture cover and 1% is tree cover.

The net sown area pattern varies greatly from one state to another. The forest cover in the country is lower than the ideal 33% as outlined in the National Forest Policy formulated in the year 1952. The percentage of forests is needed to increase in order to maintain the ecological balance.

The forest cover did not increase since 1960-61 due to the following reasons: -

- 1. Improper use of land has caused degradation and loss of forests.*
- 2. Ever increasing deforestation to meet the needs of the increasing population.*
- 3. Large scale development projects, industrialization and urbanization have reduced the forest cover.*

Q No. 5:-How have technical and economic development led to more consumption of resources?

Ans:-Technical and economic development have led to more consumption of resources in the following ways:

- It provides equipments which increases production that lead to the consumption of more resources. Introduction of sophisticated machinery further helps in exploitation of resources.
- Economic development leads to the rise of the needs of people which results into more consumption of resources.
- Economic development provides favourable environment for the development of latest technologies which helps to convert various materials into resources.
- It also expands the range of economical and social choices available to both individual and nations which leads to further pressure on resource consumption.

Additional Questions

Q No 1:- How can we explain different types of Resources:

Answer:- Resources can be classified on different bases; into following types:

- On the basis of origin: Biotic and Abiotic
- On the basis of exhaustibility: Renewable and Non-renewable
- On the basis of ownership: Individual, community, national and international
- On the basis of status of development: Potential, Developed, Stock and Reserves

Q No. 2:- Describe the type of resources classified on the basis of Origin

Answer:-

Biotic Resources: All living organisms in our environment are called biotic resources. For example, trees, animals, insects, etc.

Abiotic Resources: All non-living things present in our environment are termed as abiotic resources. For example – earth, air, water, metals, rocks, etc.

Q No. 3:- Describe the type of resources classified on the basis of Origin

Answer:-

Renewable Resources: Resources that can be replenished after a short period of time are called Renewable Resources. For example – agricultural crops, water, forest, wildlife, etc.

Non-renewable Resources: Resources which takes million years of time to replenish are called non-renewable resources. For example – fossil fuel.

Q No. 4:- Describe the type of resources classified on the basis of ownership?

Answer:

Individual Resources: Resources owned by individuals are called Individual Resources. For example – land owned by farmers, house, etc.

Community Resources: Resources owned by community or society are called Community Owned Resources. For example – Graveyard, grazing land, ponds, burial grounds, park, etc.

National Resources: Resources owned by Individual Nations are called National Resources. For example – Government land, Roads, canals, railway, etc.

International Resources: Resources regulate by International bodies are called International Resources. For example – Ocean and sea beyond 200 km of the Exclusive Economic Zone and is called open sea or ocean. No individual country can utilize these resources without the permission of International bodies.

Q No. 5:- Describe the type of resources on the basis of Status of Development:?

Answer:-

Potential Resources: Resources which are found in a particular region, but not yet used properly. For example – Rajasthan and Gujarat receive plenty of solar energy and have plenty of wind energy, but use of these resources so far has not been developed properly.

Developed Resources: Resources which are developed and surveyed for utilization and are being used in present time are known as Developed Resources.

Stock: Resources that are available, but we do not have proper technology to use them are called Stock. For example – water is made of oxygen and hydrogen, which can be used as fuel, but because of lack of proper technology these are not being used.

Reserves: Resources which are available and the knowhow to use them is also present but they are yet to be used are called Reserves. For example – river water which is not used to generate electricity.

Q 6:- Mention the major problems which have arisen due to indiscriminate use of Resources?

Answer:- Resources are vital for human beings. But indiscriminate use of resources is creating many problems.

Accumulation of resources in only few hands leaves others unsatisfied. Indiscriminate use of resources is creating many problems around the world, such as global warming, ecological crisis, disturbance in ozone layer, etc.

Thus, equal distribution of resources becomes necessary for sustainable development.

Q No. 7:- What do you mean by Sustainable Development:

Answer:- Development which takes place without damaging the environment and compromising with needs of future is called sustainable development.

Keeping the view of justified use of resources and sustainable development, the Earth Summit was organized in 1992 in Rio de Janeiro in which more than 100 state heads agreed with Agenda 21 for the sustainable development and proper use of resources.

Q No. 8:- What is Agenda 21?

Answer:- Agenda 21 is an agenda to combat environmental damage, poverty, disease, etc. through global co-operation on common interests, mutual needs and shared responsibilities.

Q No.9:- What is Resource Planning?

Answer:- Resource planning is the judicious use of resources. Resource planning becomes more important in a country like India, where resources are not distributed properly. For example; many states are rich in mineral and deficient in other resources, such as Jharkhand is rich in minerals, but there is problem of drinking water and other facilities, Arunachal Pradesh has plenty of water but lack of other development because of lack of resources.

These types of discriminations can be reduced or completely vanished with proper planning of judicious use of resources.

Q No.10:- Why resource Planning is necessary in country like India

Answer:- Resources can contribute in proper development only with a good planning keeping the technology, skills and institution in mind.

Resource Planning in India is one of the most important goals right from its first Five Years Plan. Following are the main points of Resource planning.

- *Making of inventory of resources after their region-wise identification across the country.*
- *Making of the planning structure with appropriate technology, skill and institutions.*
- *Matching of resource plan with development plan, etc.*

Q No. 11:-Why conservation of Resource is important?

Overuse of resources creates many socio-economic problems. Many leaders and thinkers have been advocating for the judicious use and conservation of resources. Gandhiji told “There is enough for everybody’s need and not for any body’s greed.” He thought that exploitative nature of modern technology is the root cause for depletion at global level. He believed in the production by masses and not in the mass production. Thus, conservation of resources at various levels becomes most important. Resources can be conserved only with their judicious use.

Q No. 12:-Write a short note on Land Resources.

Answer:- *Land is one of the most important natural resources. Land supports our life system. Thus, careful planning of use of land resource is necessary. India comprises of many types of land. These are mountains, plateau, plains and islands.*

- ***Mountains:*** *About 30% of land area in India is in the form of mountain. Mountain supports the perennial flow of rivers, which carry fertile soils, facilitate irrigation and provide drinking water.*
- ***Plain:*** *About 43% of land area in India is in the form of plains. Plains provide facilities for agriculture, building of industries and houses, etc.*

- **Plateau:** About 27% of land in India is in the form of plateau which provides many types of minerals, fossil fuels and forest.

Q No. 13:- Explain the land use patterns of use of Land Resources

Answer:-

- **Forests**
- **Land not available for cultivation:** There are two types of land which are not used for agriculture purpose. These are:
 - (a) Barren and waste land
 - (b) Lands used for buildings, roads, factories, etc. i.e for non-agriculture purpose.
- **Other uncultivated land (excluding fallow land)**
 - (a) Permanent pastures and grazing land,
 - (b) Land under miscellaneous tree crops groves (not included in net sown area),
 - (c) Culturable waste land (left uncultivated for more than 5 agricultural years).
- **Fallow lands**
 - (a) Current fallow-(left without cultivation for one or less than one agricultural year),
 - (b) Other than current fallow-(left uncultivated for the past 1 to 5 agricultural years).
- **Net sown area:** Area which is sown at least once in a year is called net sown area.
- **Gross cropped area:** Area sown more than once in an agricultural year plus net sown area is known as gross cropped area.

Q No. 14:- Explain the land use patterns in India?

Pattern of use of land depends upon physical and human factors both. Climate, topography, type of soil, etc. are considered as physical factors while population, technology, skill, population density, tradition, capability, etc. are considered as human factors.

India has total 3.28 million square kilometer land used data. But only 93% of land of total geographical area is available. This is because land used data has not been collected for the north eastern states except Assam and the land occupied by Pakistan and China has not been surveyed because of many unavoidable reasons.

The land under permanent pasture is decreasing, this will create the problem for grazing. The total net sown area (NSA) is not more than 54% including land other than fallow land. Land other than fallow land is either of poor quality or too costly to cultivate, these lands are cultivated only once or twice in two or three consecutive years.

The pattern of net sown area varies widely from state to state. Where net sown area is 80% in state like Punjab, it is only 10% in the state of Arunachal Pradesh, Mizoram, Manipur and Andaman and Nicobar Island. Such difference is creating lot of discrimination.

According to National Forest Policy (1952), the forest should be 33% of total geographical area, which is essential to maintain ecological balance. But the forest area in India is far less than desired measures. This is because of illegal deforestation and development which cannot be overlooked, such as construction of roads and building, etc. On the other hand, a large population which is dwelling at the fringe of forest depends upon the forest and its produce, resulting in the reduction of forest area.

Moreover, continuous use of land over a long period without taking measures to conserve and manage, degrade them. This has resulted in repercussion in society and creating serious problem to environment.

Q No. 15:- What do you mean by Land as Resource?

Answer:- Our past generation left land for us without exploiting them too much and it is expected from us too. We fulfill most of our needs from land, such as food, clothing, shelter, drinking water, etc. But in past few decades the quality of land is degrading fiercely because of human activity. Many human activities aggravated the natural forces which are, in turn, degrading the land resources also.

Presently, about 130 million hectare of land is reported under degraded land in India, in which about 28% of land belongs to forest and about 28% is water eroded area. Rest degraded land is because of over deposition of salinity and alkalinity. Overgrazing, mining, deforestation, division of lands in small area because of family feuds, etc. are some of the major causes of degradation of land.

Because of mining in the states of Jharkhand, Chhattisgarh, Orissa and Madhya Pradesh; lands are left abandoned without proper treatment after the completion of mining works. This has resulted in the form of deep scars and traces. Along with mining, deforestation in these states has degraded the land very fast.

In the states of Uttar Pradesh, Punjab, Haryana, over irrigation causes water shortage and increase in salinity and alkalinity due to water logging. In Bihar, Assam, Arunachal Pradesh, land is degraded because of flood. States, in which minerals processing, such as grinding of lime stone, manufacturing of cement, etc. produce huge quantity of dust. These dusts prevent the percolation of water because of deposition on the ground and it is responsible for degradation of land.

The degradation of land creates many problems, such as flood, decrease in yield, etc. which leads to decrease in GDP and country has to face economic problems.

Q No. 16:- What are the Measures which should be taken to Conserve the Land Resources?

Answer:- Degradation of land can be prevented by taking following measures:

- Afforestation
- Proper management of grazing.
- Stabilisation of sand dunes by plantation of thorny bushes.
- Proper management of waste lands.
- By proper irrigation.
- By proper harvesting.
- Control over mining activities.
- Proper management of land after completion of mining work.
- Discharge of industrial waste and effluents only after proper treatment.
- Plantation of trees along the road sides.
- By preventing deforestation.

Q No. 17:- Write a short note on soil?

Answer:- Soil is one of the most important natural resources. Soil supports the growth of plants. Soil is the natural home of many living organisms, such as ants, rats, snakes, and many insects.

Q No. 18:- Describe the factors which control the Formation of Soil:

Answer:- It takes thousands of years to form even 1 cm of soil. Soil is formed by the weathering process of the rocks. Various natural forces, such as temperature, running water, wind, etc. along with many physical and chemical changes are equally important in the formation of soil formation.

Q No. 19:- What do you mean by the classification of Soil?

Answer:- Soil is categorized in many types on the basis of texture, colour, age, chemical properties, etc. India is a vast country which comprises of many types of land. Thus, many types of soils are found in different regions in India.

Q No. 20:- Name the different types of soils and explain them briefly?

Answer:- Alluvial Soil

Availability: Alluvial soil is found near the river or plains formed by rivers. Alluvial soil is considered relatively younger in age. In India, alluvial soil is found in the north eastern plain where Ganga, Yamuna, and Brahmaputra flow. Alluvial soil is deposited by river system. Entire northern plain is made of alluvial soil.

Alluvial soil is also found in eastern coastal plains near the Mahanadi, the Krishna, the Godavari and the Kaveri rivers.

Nature: Alluvial soil is very fertile, thus plains of Ganga, Brahmaputra, Yamuna, etc. are densely populated. Alluvial soil is the mixture of various proportions of silt, sand and clay. Alluvial soils differ in the size of their particles at the area of break of slope.

Apart from the size of particles of grains, soils are also classified on the basis of their age. The older alluvial soil is known as Bangar and new alluvial soil or Khadar. New alluvial soil has more concentration of coarse grains while Old alluvial soil has plenty of fine particles.

Alluvial soil is rich in potash, phosphoric acid and lime. Because of presence of these chemicals alluvial soil is good for the growth of sugarcane, paddy, wheat, maize, and pulses.

Black Soil

Availability: Because of black colour, this type of soil is called black soil. It is also known as Regur Soil. Black soil is found in the north west deccan plateau. It is found in the plateau of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chattisgarh and extent along with the valley of Krishna and Godavari Rivers.

Nature: Black soil has high concentration of fine particles and thus can hold moisture for long time. It contains calcium, potassium, magnesium and lime. Black soil is suitable for the growth of cotton, but many other crop are grown in the area of black soil.

Red and Yellow Soil

The soil looks red due to presence of iron in crystalline or metamorphic rocks. When the soil look yellow when it occurs in dehydrated form. Red soil is present in the eastern and southern parts of the Deccan Plateau. Red soil is also found in Orissa, Chhattisgarh, on the southern part of the Gangetic plains and along the piedmont zone of the Western Ghats.

Laterite Soil

Laterite soil is formed in regions which get high rainfall with high temperature. This causes leaching of the soil and microorganisms are killed during the process. Due to this, laterite soil does not contain humus or contains very low amount of humus. This soil is mainly found in Kerala, Karnataka, Tamil Nadu, Madhya Pradesh and in hilly areas of Orissa and Assam. This soil can be made cultivable with heavy dose of manures.

Arid Soil

Arid soil is found in those areas which receive scanty rainfall. Due to high temperature, evaporation is faster in these regions. The soil has a high content of salt. Arid soil can be made cultivable with proper treatment. Arid soil is present in Rajasthan and Gujarat.

Forest Soil

The forest soil is found in hilly areas. The soil in upper parts is highly acidic because of denudation. The soil in the lower part is highly fertile.

Q No. 21:- What do you meant by Soil Erosion and Soil Conservation

Answer:- Removal of top soil is called soil erosion. Intense farming, grazing, construction activities and other human activities; along with deforestation have led to soil erosion. Soil erosion; if not checked in time; can even lead to desertification.

Q No. 22:- Explain the methods of soil conservation?

Answer:- Soil conservation is important to prevent soil erosion. Soil conservation can be done by many methods. Afforestation is the main method because trees hold the topsoil in place. Terrace farming and shelter belt planting also help in soil conservation.
