

# Social Science Class 10

## Important Questions Geography

### Chapter 1

## Resources and Development

Very Short Answer Questions (VSA) 1 Mark

#### **Question 1.**

What do you understand by Resource?

#### **Answer:**

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'.

#### **Question 2.**

Classify resources on the basis of exhaustibility.

#### **Answer:**

Renewable and non-renewable resources.

#### **Question 3.**

Classify resources on the basis of development.

#### **Answer:**

Potential, developed stock and reserves.

#### **Question 4.**

Give an example of Biotic resources.

#### **Answer:**

Human beings, flora and fauna are examples of biotic resources.

#### **Question 5.**

What types of resources are solar and wind energy?

#### **Answer:**

Solar and wind energy are renewable resources.

#### **Question 6.**

Mention a non-renewable source that cannot be recycled and get exhausted with their use.

#### **Answer:**

Fossil fuel.

#### **Question 7.**

What do you understand by international resources? Give example.

#### **Answer:**

These resources are regulated by international institutions. Examples are the oceanic resources beyond 200 km of the Exclusive Economic Zone belong to open ocean and no [individual country can utilise these without the concurrence of international institutions.

**Question 8.**

What are developed resources?

**Answer:**

Resources which are surveyed and their quality and quantity have been determined for utilisation. The development of resources depends on technology and level of their feasibility.

**Question 9.**

Which are the results of using resources indiscriminately by human beings? Mention any one.

**Answer:**

1. Accumulation of resources in a few hands.
2. Depletion of resources for satisfying the greed of few individuals.

**Question 10.**

What is sustainable development?

**Answer:**

Sustainable economic development means 'development should take place without damaging the environment and development in the present should not compromise with the needs of the future generations'.

**Question 11.**

What was the object of Rio de Janeiro Earth Summit, 1992?

**Answer:**

The Summit was convened for addressing urgent problems of environmental protection and socio-economic development at the global level.

**Question 12.**

What is Agenda 21?

**Answer:**

It is the declaration signed by world leaders in 1992 at the United Nation's Conference on Environment and Development which took place at Rio de Janeiro (Brazil).

It aims at achieving global sustainable development. It is an agenda to combat environmental damage, poverty, disease through global cooperation on common interests, mutual needs and shared responsibilities.

**Question 13.**

Which states in India are rich in minerals and coal deposits?

**Answer:**

Jharkhand, Chhattisgarh and Madhya Pradesh.

**Question 14.**

How did Gandhiji voice his concern about resource conservation?

**Answer:**

Gandhiji said, "There is enough for everybody's need and not for any body's greed."

**Question 15.**

What was the main reason for the colonial countries to exploit resources of countries under their control?

**Answer:**

High level of technological development.

**Question 16.**

Which report in 1987 introduced the concept of 'Sustainable Development'?

**Answer:**

Brundtland Commission Report.

**Question 17.**

How much area of land in India is plain and what is its importance?

**Answer:**

About 43 per cent of the land area is plain. It provides facilities for agriculture and industry.

**Question 18.**

What is the use of mountains?

**Answer:**

Mountains ensure perennial flow of some rivers, provide facilities for tourism and ecological aspects.

**Question 19.**

What is gross cropped area?

**Answer:**

Area sown more than once in an agricultural year plus net sown area is known as gross cropped area.

**Question 20.**

What is total geographical area of India?

**Answer:**

3.28 million sq. km.

**Question 21.**

When the National Forest Policy was formed in India?

**Answer:**

1952.

**Question 22.**

How much degraded land is in India?

**Answer:**

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

**Question 23.**

Which are the factors that determine the use of land?

**Answer:**

The factors are topography, climate, soil types, population, density, technological capability and culture and traditions.

**Question 24.**

State factors responsible for land degradation.

**Answer:**

Overgrazing, mining, quarrying and deforestation.

**Question 25.**

Which are the ways to solve the problems of land degradation?

**Answer:**

Afforestation, proper management of grazing, control of mining activities etc.

**Question 26.**

How mining is responsible for the degradation of land?

**Answer:**

Mining sites are abandoned after excavation work is complete leaving deep scars and traces of overburdening.

**Question 27.**

Mention the states where overgrazing and over-irrigation are responsible for degradation.

**Answer:**

1. **Overgrazing** – Gujarat, Rajasthan Madhya Pradesh and Maharashtra.
2. **Over-irrigation** – Punjab, Haryana, western Uttar Pradesh.

**Question 28.**

Which part of India is made of alluvial soil?

**Answer:**

The entire Northern Plains are made of alluvial soil.

**Question 29.**

How are alluvial soils classified on the basis of their age?

**Answer:**

According to their age alluvial soils can be classified as old alluvial soil — Bangar and new alluvial – Khadar.

**Question 30.**

What is the other name of black soils?

**Answer:**

Regur soils.

**Question 31.**

Where are red and yellow soils found?

**Answer:**

Red and yellow soils are found in the eastern and southern parts of the Deccan plateau, in parts of Orissa, Chattisgarh, southern parts of the middle Ganga plain and along the piedmont zone of the Western Ghats.

**Question 32.**

State one feature of laterite soils.

**Answer:**

The laterite soils are suitable for cultivation with adequate doses of manures and fertilisers.

**Question 33.**

Which soil is suitable for production of Cashew Nut and where?

**Answer:**

Red laterite soil in Tamil Nadu, Andhra Pradesh and Kerala is suitable for the crop of cashew nuts.

**Question 34.**

What is soil erosion?

**Answer:**

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

**Question 35.**

Which are two causes for soil erosion?

**Answer:**

Deforestation, overgrazing and mining activities.

**Question 36.**

What are ravines?

**Answer:**

The land that becomes unfit for cultivation is known as bad land. In the Chambal basin such lands are called ravines.

**Question 37.**

What is the significance of the shelter belts in the desert in western India?

**Answer:**

The shelter belts have contributed significantly to the stabilisation of sand dunes and in stabilising the desert in western India.

**Question 38.**

What is the use of contour ploughing?

**Answer:**

Ploughing along the contour lines can decelerate the flow of water down the slopes.

**Question 39.**

What is use of shelter belts?

**Answer:**

Shelter belts contribute significantly to the stabilisation of sand dunes and in stabilising the desert in western India.

**Question 40.**

What do you understand by a 'Resource'? Give examples.

**Answer:**

Everything available in our environment which can be used to satisfy our needs, is called a resource. It should be technologically accessible, economically feasible and culturally acceptable. Only then, it can be termed as a 'Resource'. Examples are: minerals, forests, fossil fuels etc..

**Question 41.**

"Resources are a function of human activities." Justify this statement.

**Answer:**

Mere presence of resources, as free gifts of nature, does not make them resources. Human beings are essential components of resources because they transform material available in our environment into resources. The utility of resources depends on the stage of cultural development of man and the tools and technology used by him.

Question 42.

Write the classification of resources on four different bases.

Answer:

Resources can be classified in the following four ways:

(a) On the basis of Origin:

1. Biotic
2. Abiotic

(b) On the basis of exhaustibility:

1. Renewable
2. Non-renewable

(c) On the basis of ownership:

1. Individual (Personal)
2. Community
3. National
4. International

(d) On the basis of status and development:

1. Potential
2. Developed
3. Reserve
4. Stock

Question 43.

Explain the classification of resources on the basis of origin and give one example of each.

Answer:

On the basis of origin, resources can be classified as Biotic and Abiotic.

Biotic Resources are obtained from the biosphere. They have life or are living resources, e.g., human beings, fisheries, forests, etc.

Abiotic Resources include all non-living things, e.g., rocks and minerals.

Question 44.

Classify the resources on the basis of exhaustibility and give two examples of each.

Answer:

On the basis of exhaustibility, resources can be classified as: Renewable and Non-renewable.

**Renewable Resources.** The resources which can be renewed or reproduced by physical, chemical and mechanical processes are known as renewable or replenishable resources, e.g., water, wildlife, forests, solar energy, wind energy etc.

**Non-renewable Resources.** The resources which once get exhausted, cannot be remade. They take a long geological period of time, i.e., millions of years in their formation, e.g., minerals, fossil fuels etc.

Question 45.

Write two types of renewable resources and give one example of each type.

Answer:

Two types of renewable resources are as follows:

1. Continuous or Flow Resources, e.g., wind and water resources.
2. Biological Resources, e.g., natural vegetation (forests) and wildlife.

Question 46.

Write two characteristics of non-renewable resources and write their two broad categories with examples.

Answer:

Two characteristics of non-renewable resources:

1. They cannot be recycled and get exhausted with their use.
2. They take millions of years in their formation.

Two broad categories of non-renewable resources:

1. Recyclable resources, e.g., metals.
2. Non-recyclable resources, e.g., fossil fuels.

Question 47.

Give any two examples of non-renewable resources.

Answer:

Non-renewable resources are resources which once get exhausted, cannot be remade. They take a long geological period of time, i.e., millions of years, in their formation, e.g., minerals, fossil fuels, etc.

Question 48.

Explain four types of resources based on ownership and give one example of each type.

Answer:

On the basis of ownership, there are four types of resources:

1. Individual Resources. Resources, which are owned privately by individuals, e.g., farmers own pieces of land or houses. Plantation, pasture lands, water in wells are some resources owned by individuals.
2. Community Owned Resources. These resources are accessible to all the members of the community, e.g., village ponds, public parks, playgrounds in urban areas are accessible to all the residents of that area.
3. National Resources. All the resources within the political boundary of a nation including the territorial water (oceanic area upto 12 nautical miles from the coast) extending into the ocean and resources therein belong to the nation, e.g., all minerals, forests, wildlife, water resources, land etc.
4. International Resources. There are international institutions which own and regulate some resources, e.g., The oceanic resources beyond 200 km of the Exclusive Economic Zone belong to the open ocean and no individual country can utilise these without the concurrence of international institutions.

Question 49.

Distinguish between the following:

1. Potential and Developed Resources;
2. Stock and Reserves.

Answer:

1. Potential Resources. Resources which are found in a region, but have not been utilised, e.g., Gujarat and Rajasthan have a lot of potential for the development of wind and solar energy, but so far they have not been developed fully.

Developed Resources. Resources which are surveyed and their quality and quantity have been determined for utilisation. The development of resources depends on technology and level of their feasibility, e.g., water resources used for hydel power generation or irrigation purposes.

2. Stock. Materials in the environment, which have the potential to satisfy human needs but man does not have the appropriate technology to access them are included among stock, e.g. water is a compound of two inflammable gases: hydrogen and oxygen, which can be used as a rich Source of energy. But we do not have the required technical know-how to use them for this purpose. Reserves. Reserves are the subset of the stock, which can be put into use with the help of existing technical 'know-how' but their full use has been postponed for meeting the future needs, e.g., forest reserves, iron-ore reserves, water in the dams etc.

Question 50.

Name the categories under which natural resources can be grouped on the basis of state of development.

Answer:

1. Potential Resources
2. Developed Resources
3. Stock
4. Reserves.

Question 51.

How are natural resources important for man? Give five points.

Answer:

Importance of resources for man:

1. Resources are vital for human survival.
2. They are important for maintaining the quality of life as man has been using the bio-physical environment to satisfy his needs.
3. Natural resources form the backbone of the economy of a nation.
4. These are the bases for economic strength and prosperity of the people.
5. They provide material, energy and favourable conditions for development.

Question 52.

List the problems which resulted due to indiscriminate use of resources by man.

Answer:

1. It has resulted in depletion of many resources.
2. Accumulation of resources in few hands which, in turn, divided the society in two segments, i.e., haves and have-nots or rich and poor.
3. It has led to the global ecological crisis, e.g., global warming, ozone layer depletion, environmental pollution, land degradation, etc.

Question 53.

"Resource planning is essential for sustainable existence." Discuss.

Answer:

Sustainable existence is a component of sustainable development which aims at development without damaging the environment and at the same time conserving for future generation. Therefore, resource planning is necessary for judicious, rational and equitable distribution and proper utilisation of resources. It has become essential for a sustained quality of life and global peace.

Question 54.

What do you understand by 'sustainable economic development'?

Answer:

Sustainable economic development means that 'development should take place without damaging



the environment and development in the present should not compromise with the needs of future generation.'

Question 55.

Why is 'Resource Planning' necessary? Give reasons.

Answer:

Planning is necessary for proper and judicious utilisation of resources.

Reasons for resource planning:

1. Resource availability is not the same in all parts of the country.
2. Resources, especially non-renewable resources, need extra care as they cannot be renewed.
3. There is acute shortage or deficiency of some resources.
4. Resource planning helps in proper utilisation of resources by reducing wastage. It takes care of future needs and may sustain the environment.

Question 56.

"India has enormous diversity in the availability of resources." Name four varied regions to justify this statement.

Answer:

There are regions which are rich or self-sufficient in certain types of resources and there are areas that are deficient or have acute shortage of some vital resources.

For example:

1. The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits.
2. Arunachal Pradesh has abundance of water resources but lacks in infrastructural development.
3. Rajasthan is very well endowed with solar and wind energy but lacks in water resources.
4. The cold desert area of Ladakh has very rich cultural heritage. It is deficient in water, infrastructure and some vital minerals.

Such cases call for balanced resource planning at different levels.

Question 57.

Explain three stages of 'resource planning.'

Answer:

Three stages of resource planning:

1. Identification and inventory of resources across the regions of the country. This involves surveying, mapping and the qualitative and quantitative estimation and measurement of the resources.
2. Evolving a planning structure endowed with appropriate technology, skill and institutional set up for implementing resource development
3. Matching the resource development plans with overall national development

Question 58.

"Planning is the widely accepted strategy for judicious use of resources in a country like India".

Justify this statement with two relevant points and an example.

Answer:

India has enormous diversity in the availability of resources. Through planning, regions which have shortage of vital resources and those having adequate quantities, receive equal attention.

1. There are regions which are rich in certain types of resources but are deficient in some other resources.  
For example: Arunachal has abundance of water but lacks in infrastructural development.
2. There are some regions which can be considered self-sufficient in terms of availability of resources.  
For example: The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits.

3. There are some regions which have acute shortage of some vital resources.  
For example: The state of Rajasthan is well endowed with solar and wind energy but lacks in water resources.

Question 59.

Write four factors which determine resource development in a region.

Answer:

Four factors involved in the development of resources are:

1. Availability of resources
2. Level of technology
3. Quality of human resources
4. Historical experiences of the people

Question 60.

What do you understand by 'conservation of resources'? Why is it necessary to conserve our resources? Give three reasons.

Answer:

Conservation is judicious and planned use of natural resources for sustainable benefit to the present generation. It also maintains a potential to meet the needs and aspirations of future generations.

Three reasons for conservation:

1. Our resources are limited in nature, therefore they have to be frugally used.
2. Many of the resources are non-renewable in nature, therefore extra care has to be taken.
3. Their conservation is necessary for our own sustenance and for the ongoing economic developmental processes.

Question 61.

Explain the concept of resource conservation as voiced by Gandhiji.

Or

Whom did Gandhiji make responsible for the depletion of resources at the global level?

Answer:

Gandhiji voiced his concern about resource conservation in these Words: "There is enough for everybody's need and not for anybody's greed." He placed the greedy and selfish individuals as the root cause for resource depletion at the global level. He was against 'mass production' and wanted to replace it with 'production by the masses'.

1. Indiscriminate use of resources by human beings has led to the depletion of resources for satisfying the greed of few individuals.
2. Irrational consumption and over-utilization of resources leads to socio-economic and environmental problems.

Question 62.

Write four institutional efforts made at global level for 'resource conservation'.

Answer:

1. At the international level, the Club of Rome advocated resource conservation for the first time in a more systematic way in 1968.
2. In 1974, the Gandhian Philosophy was presented once again by Schumacher in his book "Small is Beautiful".
3. Brundtland Commission Report in 1987, introduced the concept of 'sustainable development' and advocated it as a means for resource conservation. This was subsequently published in a book entitled "Our Common Future".

4. In June 1992, the first 'International Earth Summit' was held in Rio de Janeiro in Brazil, in which 100 heads of States met for addressing urgent problems of environmental protection and socio-economic development at the global level.

Question 63.

Write the major features of Rio de Janeiro Earth Summit, 1992.

Answer:

1. In 1992, 100 heads of States met in Rio de Janeiro in Brazil, for the first 'International Earth Summit'.
2. The summit was convened for addressing urgent problems of:
  1. environmental protection and
  2. Socio-economic development at global level.
3. The assembled leaders signed the Declaration on Global Climatic Change and the Biological Diversity.
4. The Rio convention endorsed the global Forest Principles and adopted 'Agenda 21' for achieving sustainable development in the 21<sup>st</sup> century. It is an agenda to combat environmental damage, poverty and diseases through global co-operation on common interests, mutual needs and shared responsibilities.

Question 64.

"The future generation may not have sufficient resources as compared to the present generation". Justify the statement by giving suitable examples.

Or

Why is the issue of sustainability relevant for development?

Answer:

Present sources of energy in India are coal, petroleum, natural gas, solar energy, wind energy, hydel power, electricity, wood for fire, cow dung etc. Most of these are non-renewable sources of energy which may get exhausted after some time. These are available in limited quantities. The present rate of consumption is higher than the rate at which these resources are being replenished and should be preserved for our future generations.

In fifty years' time, India may depend largely on non-conventional sources of energy which are available in abundance such as solar energy, hydel energy, wind energy etc. The total hydel power potential in India is estimated at 1,50,000 MW of which only one-sixth has been developed so far.

1. Development of a country needs to be continuous. Every country would like to have the level of development go up further.
2. Many scientists have warned that the present levels of development cannot be sustained for the future as the present rate of consumption of both renewable and non-renewable resources is very high. Rapid industrialisation has led to environment degradation.
3. Sustainability development aims at development without damaging the environment and at the same time conserving for the future.
4. Sustainability of development is essential not only for the present generation but also for future generations to ensure a good life.

Land Resources

Question 65.

Why is land as a resource important for us? Write four points.

Answer:

1. 95% of our basic needs of food, clothing and shelter are derived from land.

2. We live on land and use it in different ways, e.g. for agriculture, for transport and communication systems, etc.
3. We perform our economic activities on land.
4. It supports natural vegetation, wildlife and human life.

Question 66.

Why land-use should be done in a planned manner? Write two points.

Answer:

1. Land is a fixed asset.
2. As land is used for varied purposes and activities and for human sustenance, therefore it is important to use the available land for various purposes with careful planning.

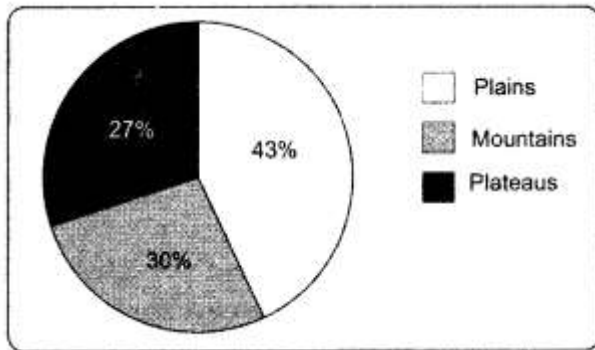
Question 67.

Look at the picture and name three major relief features of India and their respective share in the total area.

Answer:

Three major relief features:

1. Plains — 43%
2. Mountains — 30%
3. Plateaus — 27%



Question 68.

Name the relief feature occupying the largest area, along with its percentage share in the total area.

Answer:

Plains occupy the largest area having 43% share in the total area.

Question 69.

Name three main relief features of India and write the importance of each.

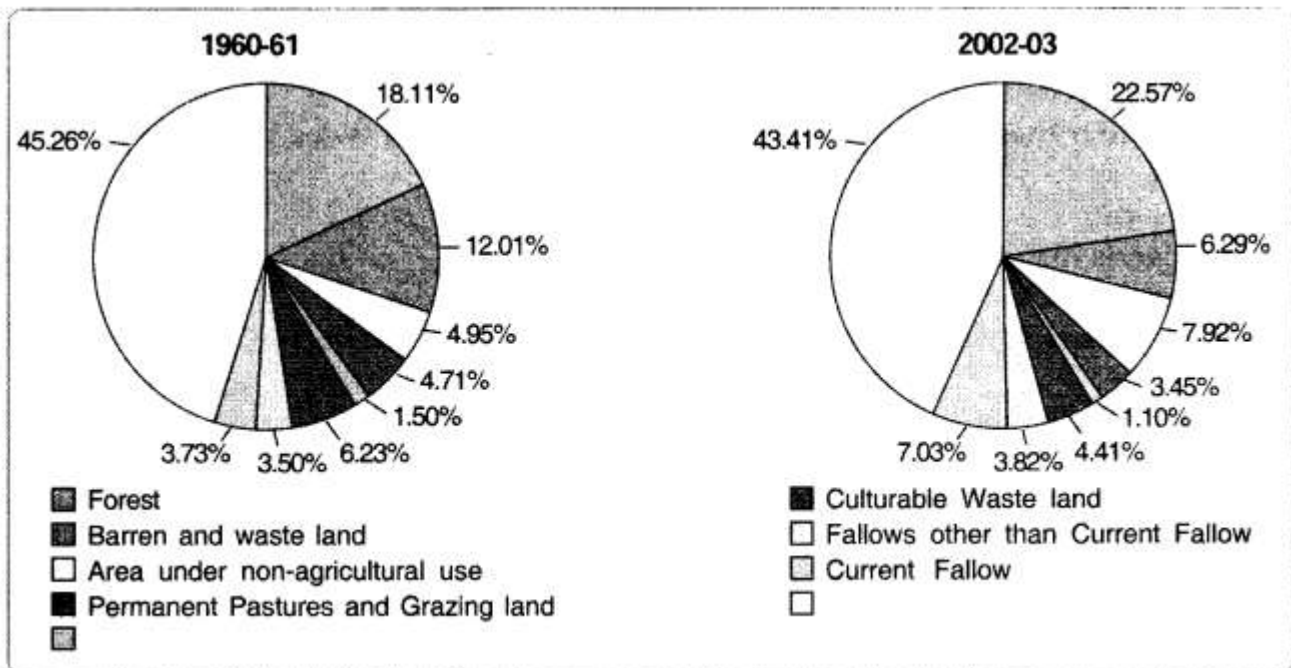
Answer:

Relief Features	Their Importance /Uses
1. Plains	(i) provide facilities for agriculture.  (ii) provide facilities for industrial development.

	(iii) because of their level, nature and ease of construction, plains support huge population of the country.
2. Mountains	(i) ensure perennial flow of some rivers and many rivers rise from them.  (ii) provide facilities for tourism.  (iii) are important from ecological point of view, e.g. have lot of forest wealth and wildlife.
3. Plateaus	(i) possess rich reserves of minerals.  (ii) contain lot of fossil fuels, especially coal.  (iii) possess rich forest cover.

Question 70.

Look at the picture and explain the land-use pattern in India. Why has land under forest not increased much since 1960-61?



Answer:

The major land-use categories and their percentage share is:

1. Net sown area, where regular agriculture is done — 43.41%.
2. Forests, 22.57% of the total land is covered by forests.

3. Barren and waste land — 6.29%.
4. Area under non-agricultural use — 7.92%.
5. Permanent pastures and grazing land — 3.45%.
6. Area under miscellaneous tree crops and groves — 1.1%.
7. Culturable waste land — 4.41 %
8. Fallows other than current fallows — 3.82%
9. Current fallow – 7.03%

The land under forests has increased marginally by about 4.46%. From 18.11% in 1960-61, it is still only 22.57% which is far lower than the desired 33% as outlined by the National Forest Policy (1952).

Reasons for marginal increase in forest area:

1. increasing population
2. technological developments
3. expansion of agriculture
4. development of transport and communication facilities
5. overgrazing
6. felling of trees

All these exert great pressure on land thus causing further depletion of forests.

Question 71.

Distinguish between each of the following:

- (a) Current fallow and other than current fallow land
- (b) Waste-land and culturable waste-land
- (c) Net sown area and gross cropped area.

Answer:

- (a) Current fallow land. Land left without cultivation for one or less than one agricultural year. Other than current fallow land. Land left uncultivated for the past one to five agricultural years.
- (b) Waste land. It includes rocky, arid and desert areas which are lying waste at the moment. Culturable waste land. Arable land which is left uncultivated for more than five agricultural years.
- (c) Net Sown Area. It is the total area under cultivation. Gross Cropped Area. Area sown more than once in an agricultural year plus net sown area.

Question 72.

What do you understand by 'reported area'? What is the reported area of India and why? Give two major reasons.

Answer:

The percentage of total area for which land-use statistics (data) are available, is termed as 'reported area'. India's reported area is 93%.

Reasons:

2. Because the land-use reporting for most of the north-eastern states, except Assam, has not been done.
3. Some areas of Jammu and Kashmir occupied by Pakistan and China have not been surveyed.

Question 73.

Write three physical and three human factors which determine the use of land.

Answer:

Physical Factors:

1. Topography
2. Climate
3. Soil types

4. Human Factors:

5. Population density
6. Technological capability
7. Culture and traditions

Question 74.

Why are the other than current fallow-lands cultivated once or twice in about two to three years? Give two reasons.

Answer:

Two reasons are:

1. These lands may be of poor quality.
2. The cost of cultivation of such lands is very high.

Question 75.

“The pattern of net sown area varies greatly from one state to another.”

Or

Name two states having high net sown area and two states having low net sown area. Give two reasons for each.

Answer:

Punjab and Haryana are two states, which have more than 80% of their total area as N.S.A. (Net Sown Area) because:

1. They are agriculturally rich States because of favourable climatic conditions for the growth of crops and levelled fertile nature of land.
2. Irrigation facilities are well-developed here.

States with low N.S.A. i.e., less than 10% are Arunachal Pradesh and Mizoram because:

1. The nature of land is hilly and forested, therefore availability of arable land is less.
2. Economic backwardness and climatic conditions also do not encourage large scale agricultural activities.

Question 76.

According to National Forest Policy, how much of the country's area should be under forest cover and why? Give two considerations for this norm. Have we been able to meet this norm?

Answer:

According to National Forest Policy, 33% of the country's total area should be under forest cover.

Reasons:

1. It is considered essential for the maintenance of ecological balance.
2. The livelihood of millions of people who live on the fringe of these forests depends on these forests.

We have 22.57% area under forests which is far lower than the desired 33% of geographical area, as outlined by National Forest Policy.

Question 77.

What is land degradation? What is the area of degraded land in India? Name four types of wastelands and their percentage share respectively.

Answer:

Damage to the land, bringing down its quality is called land degradation.

Continuous use of land over a long period of time without taking appropriate measures to conserve and manage it, results in land degradation. India has 130 million hectares of degraded

land.

Four categories of waste-lands:

1. Water eroded area .. 56%
2. Forest degraded area .. 28%
3. Wind eroded area .. 10%
4. Saline and Alkaline land .. 6%

Question 78.

Write six human activities which have caused land degradation.

Answer:

1. Deforestation
2. Overgrazing
3. Mining activities — mining sites are abandoned after excavation leaving deep scars and traces of over-burdening.
4. Mineral processing produces large quantities of dust in the atmosphere, which on settling down on land, retards the process of infiltration of water into the soil.
5. Over-irrigation leads to waterlogging which increases salinity and alkalinity in the soil.
6. Industrial effluents — such wastes cause land and water pollution.

Question 79.

Which factor is mainly responsible for maximum land degradation in India? (2015)

Answer:

Over-grazing is one of the main reasons for land degradation. States where over-grazing has resulted in land degradation are Gujarat, Rajasthan, Madhya Pradesh and Maharashtra.

Question 80.

Distinguish between biotic and abiotic resources by stating four points.

Answer:

Difference between biotic and abiotic resources

Biotic resources	Abiotic resources
(i) The resources which are obtained from biosphere are biotic resources.	(i) All those things which are composed of nonliving things are called abiotic resources.
(ii) They have life.	(ii) They do not have life.
(iii) These include flora and fauna, fisheries, livestock, human beings, etc.	(iii) These include rocks, metals, land, air, mountains, rivers, etc.



(iv) Minerals such as coal and petroleum are included in this category because they were formed from decayed organic matter.	(iv) Minerals such as gold, iron, copper, silver, etc. come in this category.
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Question 81.

Name three states each in which land degradation is caused due to

1. over-irrigation
2. over-grazing
3. deforestation due to mining activities

Answer:

1. Three states where over-irrigation has resulted in land degradation are Punjab, Haryana and Western Uttar Pradesh.
2. Due to over-grazing. Gujarat, Rajasthan, Madhya Pradesh and Maharashtra.
3. Deforestation due to mining activities has led to land degradation in Jharkhand, Chhattisgarh, Madhya Pradesh.

Question 82.

Write some measures/ways to solve problems of land degradation.

Answer:

Measures to conserve land:

1. Afforestation.
2. Proper management of grazing to control over-grazing.
3. Planting of shelter belts of plants.
4. Stabilisation of sand dunes by growing thorny bushes.
5. Control of mining activities.
6. Proper discharge and disposal of industrial effluents and wastes after treatment.
7. Proper management of waste-lands
8. Avoid over-irrigation, especially in dry areas.
9. Avoid overuse of fertilisers and pesticides.

Soil As A Resouce

Question 83.

What is soil? How is it an important resource for us?

Answer:

Soil is the uppermost layer of the earth's crust which is loose, fragmented and fine. It is rich in both organic (humus) and inorganic materials and supports plant growth.

Soil is a living system. It takes millions of years to form soil upto a few cm in depth.

It is an important resource because:

1. It is the medium of plant growth.
2. It supports different types of living organisms on earth.

Question 84.

Write the main factors responsible for soil formation.

Answer:

Soil is a living system. It takes millions of years to form soil up to a few centimeters in depth. Factors responsible for soil formation are:

1. Parent rock or bed rock on which the soils are formed, disintegrate and decompose under the process of weathering and erosion.
2. Climate: It determines the rate of weathering.
3. Relief, vegetation, other forms of life and time are other important factors in the formation of soils.
4. Various forces of nature such as change in temperature, actions of running water, wind and glaciers, activities of decomposers etc. also contribute to the formation of soil.
5. Chemical and organic changes which take place in soil, also play a role in its formation.

Question 85.

Write four factors which are responsible for varied types of soils in India.

Answer:

Factors:

1. Varied relief features
2. Varied land forms
3. Varied climatic realms
4. Varied vegetation types.

Question 86.

On what basis are soils classified into different types?

Answer:

Basis of classification of soils:

1. Colour
2. Thickness
3. Texture
4. Age
5. Chemical and physical properties
6. Factors responsible for soil formation.

Question 87.

Name six types of soils found in India. Which is the most widely spread soil? Name one major region where it is found.

Answer:

1. Alluvial soil
2. Red and yellow soil
3. Black soil
4. Laterite soil
5. Arid soil
6. Forest and mountainous soils

Alluvial soil is the most widely spread soil.

The entire northern plains are made of alluvial soil.

Question 88.

Write three regional/local names of areas where you find coarse alluvial soil and name one deltaic area which has fine alluvial soil.

Answer:

Coarse alluvial soil is more common in piedmont plains such as Duars, Chos and Terai.

Fine alluvial soil is found in the eastern coastal plains in the deltas of Mahanadi, Godavari, Krishna and Kaveri rivers.

Question 89.

Classify alluvial soils on the basis of their age. Write two characteristics of each.

Answer:

According to their age, alluvial soils are of two types: Bangar and Khadar.

Bangar	Khadar
(i) It is old alluvial soil.	(i) It is new alluvial soil.
(ii) It has higher concentration of 'kankar' nodules.	(ii) It has more fine particles.
(iii) It is coarser and is found in the old river terraces.	(iii) It is more fertile than 'Bangar' and is found in flood plains.

Question 90.

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 91.

Give the distribution of alluvial soils in brief.

Answer:

The entire northern plains are made up of alluvial soils.

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

Question 92.

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 93.

Write six characteristics of regur soils (black soils).

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 94.

Give the distribution of black/regur Soil.

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 Chhattisgarh and extends along the Godavari and Krishna Valleys.

Question 95.

In what broad category do the soils of Maharashtra fall?

Answer:

Black soil region also known as regur soils.

Question 96.

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 97.

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 98.

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 99.

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 100.

Write the main characteristics of arid soils.

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 101.

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 102.

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 103.

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

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 104.

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 105.

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.

**Question 106.**

What is meant by resource? Mention the four basis to classify the resources.

**Answer:**

**(1) Resource :** 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.

**(2) Four basis to classify resources are as mentioned below:**

1. On the basis of origin – biotic and abiotic.
2. On the basis of exhaustibility – renewable and non-renewable.

3. On the basis of ownership – individual, community, national and international.
4. On the basis of status of development – potential, developed stock and reserves.

**Question 107.**

Are resources free gifts of nature?

**Answer:**

No. Resources are not free gifts of nature. Resources are a function of human activities. Human beings themselves are essential components of resources. They transform material available in our environment into resources and use them.

**Question 108.**

What are biotic and abiotic resources? Give two examples for each.

**Answer:**

**On the basis of origin resources are divided as given below :**

1. **Biotic resources:** These are obtained from biosphere and have life such as human beings, flora and fauna, fisheries and livestock.
2. **Abiotic resources:** All those things which are composed of non-living things are called abiotic resources e.g., rocks and metals.

**Question 109.**

Explain the types of resources on the basis of exhaustibility by giving examples.

**Answer:**

**On the basis of exhaustibility, the resources are of two types as mentioned below :**

**(1) Renewable resources :**

1. These can be renewed or reproduced by physical, chemical or mechanical process. Examples are solar and wind energy, water and forests.
2. The renewable resources may further be divided into continuous or flow and biological,
3. Continuous or flow resources are wind and water,
4. Biological resources are vegetation (forests) and wildlife,
5. These resources are available continuously.

**(2) Non-renewable resources:**

1. They exhaust and take millions of years in their formation.
2. Examples are minerals and fossil fuels,
3. Some of the resources like metals are recyclable and some like fossil fuels cannot be recycled and get exhausted with their use.
4. These resources cannot be regenerated.

**Question 110.**

Provide a suitable classification for resources on the basis of ownership. Mention main features of any three types of such resources.

**Answer:**

**These are divided as individual, community owned, national and international resources.**

**(1) Individual resources:**

1. These are owned privately by individuals,

2. Many farmers own land in the villages which is allotted to them by government against payment of revenue,
3. Urban people own plots, houses and other property,
4. Plantation, pasture lands, ponds are also owned by individuals.

**(2) Community owned resources:**

1. These are owned by community.
2. These are accessible to all the members of the community,
3. Village commons (grazing grounds, burial grounds), public parks, picnic spots in urban areas are accessible to all the people living there.

**(3) National resources:**

1. These are owned and belong to the nation or state,
2. All the minerals, water resources, forests, wildlife land within the political boundaries and oceanic area upto 12 nautical miles (19.2 km) from the coast termed as territorial water and resources there-in belong to the nation.

**(4) International resources:**

These do not belong to any country. Some of these resources are regulated by international institutions. Oceanic resources beyond 200 km of the Exclusive Economic Zone belong to open ocean and no individual country can utilise these without the concurrence of international institutions.

**Question 111.**

How are the resources divided on the basis of the status of development? Give example of each type.

**Or**

Differentiate between stock resources and reserves.

**Answer:**

**These can be divided into four types :**

**(1) Potential resources:** These are found in a region but have not been utilised, e.g., enormous potential for development of wind and solar energy in Rajasthan and Gujarat. But so far these have not been developed properly.

**(2) Developed resources:**

1. Resources whose quality and quantity have been determined for utilisation.
2. Their development depends on technology and their level of feasibility.

**(3) Stock :**

Materials in the environment which can satisfy human needs but human beings do not have the appropriate technology to access these e.g., two components of water — hydrogen and oxygen can be used as a rich source of energy but we, human beings, do not have technology to use them. Hence it is considered as stock.

**(4) Reserves:**



1. These are the subset of the stock which can be used by present technology but their use has not been started fully.
2. River water can be used for generating hydroelectric power but presently it is being used only to a limited extent,
3. Such resources can be used for meeting future requirements,
4. Water in the dams, forests etc. is a reserve which can be used in the future.

**Question 112.**

Highlight any three problems associated with the indiscriminate use of resources by the human beings.

**Answer:**

**The indiscriminate use of resources by the human beings has resulted in the following :**

1. Depletion of resources for satisfying the greed of few individuals.
2. Accumulation of resources in few hands which has divided the society into rich and poor or have and have nots.
3. Indiscriminate exploitation of resources has led to global ecological crises such as global warming, ozone layer depletion, environmental pollution and land degradation.  
Thus, an equitable distribution of resources has become essential for a sustained quality of life and global peace. If the present trend of resource depletion by some individuals and countries continues, the future of our planet is in danger.

**Question 113.**

Why is the issue of sustainability important for development? Explain.

**Answer:**

Sustainable development means that a development should meet the needs of the present without compromising the ability of future generations to meet their needs. However, since the second half of the twentieth century, a number of scientists have been warning that the present type and levels of development are not sustainable. The issue of sustainable development has emerged from rapid industrialisation of the world in the past century. It is felt that the economic growth and industrialisation have led to reckless exploitation of natural resources. On the other hand, the stock of natural resources are limited. So, the growth of all countries in future is likely to be endangered if the limited resources are completely exhausted. Under these circumstances, the issue of sustainability has become important for development.

**Question 114.**

Write a note on the Rio de Janeiro Earth Summit 1992.

**Answer:**

**(1) Place :** In June 1992, more than 100 heads of states met in Rio de Janeiro in Brazil for the first International Earth Summit.

**(2) Objective:** The Summit was convened for addressing urgent problems of environmental protection and socio-economic development at the global level.

**(3) Achievements:**

1. The assembled leaders signed the Declaration on Global Climatic Change and Biological Diversity,
2. The Rio convention endorsed the Global Forest Principles and adopted Agenda 21 for achieving Sustainable Development in the 21st century.

**Question 115.**

Explain Agenda 21.

**Answer:**

1. **Declaration:** It is the declaration signed by world leaders in 1992 at the United Nations Conference on Environment and Development (UNCED) which took place at Rio de Janeiro (Brazil).
2. **Aims :**
  1. It aims at achieving global sustainable development.
  2. It is an agenda to combat environmental damage, poverty, disease through global cooperation on common interest, mutual needs and shared responsibilities,
  3. One major objective of the Agenda 21 is that every local government should draw its own local Agenda 21.

**Question 116.**

Explain the consequences of indiscriminate use of resources by human beings. How has the indiscriminate use of resources led to the necessity of resource development or resource planning?

**Or**

Why is it essential to have resource planning? Explain with reasons.

**Answer:**

1. Development of resources or resource development implies not only exploitation, but also preservation and reuse. In case of natural resources, at the time of using them, their nature, type and the size of their reserve should be considered. These should not be used indiscriminately. Therefore, an equitable distribution of resources is necessary for a sustained quality of life and global peace. The resources must not be put to wrong use. This may lead to their depletion.
  2. Some resources like coal and petroleum are available in limited quantity. If they are continued to be used at the present rate, they would not be left for the future generations.
  3. Accumulation of resources in a few hands has also restricted equitable access to the resources.
- Thus, in view of above factors resource planning is necessary.

**Question 117.**

“In India some regions are rich in certain types of resources but deficient in some other resources.” Do you agree with the statement? Support your answer with any three examples.

**Answer:**

**(1) I agree with the statement that in India some regions are rich in certain types of resources but deficient in some other resources as mentioned below :**

1. Jharkhand, Chhattisgarh and Madhya Pradesh – rich in minerals and coal deposits.
2. Arunachal Pradesh – abundance of water resources.
3. Rajasthan — lot of solar and wind energy.
4. Ladakh – rich cultural heritage.

**(2) There is great variation in the availability of resources. Some regions are rich in one resource but deficient in other, as mentioned below:**

1. Arunachal Pradesh – Lack of infrastructural development.

2. Rajasthan – Lack of water resources.
3. Ladakh – Deficient in water, infrastructure and vital minerals.

(3) There is lack of technology in some regions. Thus there are regions that are rich in resources but these are included in economically backward regions.

**Question 118.**

Explain the three stages of Resource Planning in India.

**Answer:**

**Three stages of Resource Planning in India are as given below :**

1. Identification and inventory of resources across the regions of the country. This involves surveying, mapping and qualitative and quantitative estimation and measurement of resources.
2. Evolving a planning structure endowed with appropriate technology, skill and institutional set up for implementing resource development plans.
3. Matching the resource development plans with overall national development plans.

**Question 119.**

How did Gandhiji voice his concern about resource conservation? Explain.

**Or**

What is conservation? Why is conservation of resources necessary? What are the views of Gandhiji about resource conservation?

**Answer:**

(1) Conservation is defined as the management of resources by human beings in a judicious and planned way without disturbing environment.

(2) **It is necessary due to the following reasons:**

1. We have limited quantity of resources.
2. Irrational consumption and over-utilisation of resources may lead to socio-economic and environmental problems.
3. It is also required for sustainable development.

(3) Gandhiji said, 'There is enough for everybody's need and not for any body's greed'. He stated that the root cause for resource depletion at the global level was the greedy and selfish individuals and exploitative nature of modern technology. He was against mass production and was in favour of the production by the masses.

**Question 120.**

Describe the relief features of land in India and their importance.

**Answer:**

India has a variety of relief features of land i.e., mountains, plateaus, plains and islands.

1. 43 per cent of land is plain. It is useful for agriculture and industry.
2. 30 per cent of the total land area is mountainous which ensures perennial flow of some rivers. The mountains provide facilities for tourism and ecological aspects.
3. 27 per cent area is plateau region which possesses rich reserves of minerals, fossil fuels and forests.

**Question 121.**

How are land resources used?

**Answer:**

**Land resources are used for the following purposes :**

1. Forests.
2. Land not available for cultivation.
  1. Barren and wasteland.
  2. Land put to non-agricultural uses e.g., buildings, roads and factories etc.
3. Other uncultivated land (excluding fallow land).
  1. Permanent pastures and grazing land.
  2. Land under miscellaneous tree crops and groves (not included in net sown area).
  3. Culturable wasteland (left uncultivated for more than 5 agricultural years).
4. **Fallow lands :**
  1. Current fallow (left without cultivation for Ghe or less than one agricultural year).
  2. Other than current fallow (left uncultivated for the past 1 to 5 agricultural years).
5. **Net sown area:** Area sown more than once in an agricultural year plus net sown area is known as gross cropped area.

**Question 122.**

Explain causes for land degradation.

**Or**

Explain any four human activities which are mainly responsible for land degradation in India.

**Answer:**

**(1) At present there is about 130 million hectares of degraded land in India as mentioned below :**

1. Forest degraded area — 28%
2. Water eroded area — 56%
3. Wind eroded area — 10%
4. Saline and Alkaline land — 6%

**(2) Following factors/human factors are responsible for land degradation in India :**

1. **Mining:** Mining sites are abandoned after excavation work is complete leaving deep scars and traces of over burdening.
2. **Deforestation:** In states of Jharkhand, Chhattisgarh, Madhya Pradesh and Orissa deforestation due to mining have caused severe land degradation.
3. **Overgrazing:** In states like Gujarat, Rajasthan, Madhya Pradesh and Maharashtra overgrazing is the main reason for land degradation.
4. **Over-irrigation:** In the states of Punjab, Haryana, Western Uttar Pradesh, over-irrigation is responsible for land degradation due to water logging leading to increase in salinity and alkalinity in the soil.
5. The mineral processing like grinding of limestone for cement industry generate dust in the atmosphere. It retards the process of infiltration of water into soil after it settles down on the land. Thus industrial effluents as waste have become a major source of land and water pollution in many parts of the country.

**Question 123.**

What are the ways to solve the problem of land degradation?

**Answer:**

**There are many ways to solve the problem of land degradation. These are as given below:**

1. Afforestation – Plantation of trees should be encouraged.
2. Proper management of grazing – Separate sites should be fixed for grazing.
3. Planting of shelter belts of plants.
4. Control on overgrazing – Rules for grazing should be framed.
5. Stabilisation of sand dunes by growing thorny bushes to stop land degradation.
6. Proper management of waste lands, control of mining activities, proper discharge and disposal of industrial effluents and wastes after treatment in industrial and suburban areas.

**Question 124.**

Explain any three factors responsible for the formation of soil.

**Or**

Give the importance of soil. Explain factors responsible for soil formation.

**Answer:**

**(1)** Soil is the most important renewable natural resource. It is the medium of plant growth and supports different types of living organism on the earth.

**(2)**

1. The soil is a living system. It takes millions of years to form soil up to a few centimeter in depth.
2. Relief, parent rock or bed rock, climate, vegetation and other forms of life and time are important factors in the formation of soil.
3. Various forces of nature such as change in temperature, actions of running water, wind and glaciers, activities of decomposers contribute to the formation of soil.
4. Chemical and organic changes which take place in the soil are equally important.
5. Soil also consists of organic (humus) and inorganic materials.

**Question 125.**

How are alluvial soils formed? How is Bangar different from Khadar?

**Answer:**

1. Alluvial soils are formed by the deposition by three important Himalayan river systems – The Indus, the Ganga and the Brahmaputra.
2. The Bangar is the old alluvial soil. It is less fertile because it has higher concentration of kankar nodules.  
The Khadar is the new alluvial soil. It has more fine particles and is more fertile than the bangar.

**Question 126.**

Describe features of alluvial soils. Name the places where these are found in India.

**Answer:**

**(1) The features of the alluvial soils are explained as below :**

1. The alluvial soils consist of sand, silt and clay,
2. These soils contain adequate proportion of potash, phosphoric acid and lime,
3. These soils are ideal for the growth of sugarcane, paddy, wheat and other cereal and pulse crops,
4. Soils in the drier areas are more alkaline and need proper treatment and irrigation,

5. These soils are of two types – old alluvial soil known as bangar and new alluvial soil known as khadar.

**(2) Places:** These soils are found in the entire northern plains, Rajasthan, Gujarat (a narrow corridor), eastern coastal plains particularly in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri rivers.

**Question 127.**

What broad category do the soils of Maharashtra fall?

**Or**

Mention three characteristics of black soil.

**Or**

Describe the features of black soil. Name the places where it is found in India.

**Answer:**

**Black soil**

**(1) Features :**

1. This soil is black in colour,
2. It is also known as regur soil.
3. It is ideal for growing cotton and is known as black cotton soil also,
4. It is believed that climatic condition along with parent rock material are the important factors for the formation of black soil,
5. It is made of clayey material,
6. It can hold moisture,
7. It is rich in soil nutrients such as calcium carbonate, magnesium, potash and lime,
8. It is poor in phosphoric contents, It develops deep cracks during hot weather which helps in the proper aeration of the soil,
9. These soils are sticky when wet and difficult to work on unless tilled immediately after the first shower or during the pre-monsoon period.

**(2) Places :** It is found in Deccan trap (Basalt) region spread over northwest Deccan plateau and is made up of lava flows. They cover the plateaus of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarh, and extend in the south-east direction along the Godavari and the Krishna valleys.

**Question 128.**

Describe the features of red and yellow soils. Mention the places where they are found in India.

**Answer:**

**Red and yellow soils :**

**(1) Features :**

1. These soils develop reddish colour due to diffusion of iron in crystalline and metamorphic rocks,
2. It looks yellow in a hydrated form.
3. They are highly porous and fertile when they are fine grained and deep.

**(2) Places:** Red soil develops on crystalline igneous rocks in areas of low rainfall in the eastern and southern parts of the Deccan plateau. They are also found in parts of Orissa, Chhattisgarh, southern parts of the middle Ganga plain and along the piedmont zone of the Western Ghats.

**Question 129.**

Describe features of laterite soil. Mention the places where they are found in India.

**Answer:**

**Laterite soil :**

**(1) Features :**

1. Laterite has been derived from the Latin word 'later' which means brick. It develops in areas with high temperature and heavy rainfall
2. Humus content of the soil is low.
3. They lack in elements of fertility and are of low value for crop production,
4. They are composed of little clay and much gravel of red sandstones,
5. They are suitable for cultivation with manures and fertilizers

**(2) Places :**

1. They are found in Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and hilly areas of Orissa and Assam,
2. After adopting appropriate soil conservation techniques particularly in the hilly areas of Karnataka, Kerala and Tamil Nadu, this soil is very useful for growing tea and coffee,
3. Red laterite soils in Tamil Nadu, Andhra Pradesh and Kerala are more suitable for crops like cashew nut.

**Question 130.**

Describe the features of Arid soils and Forest soils. Mention the places where they are found in India.

**Answer:**

**(1) Arid soils :**

**1. Features**

1. They range from red to brown in colour.
2. They are generally sandy in texture and saline in nature,
3. In some areas the salt content is very high and common salt is obtained by evaporating the water. Due to the dry climate, high temperature, evaporation is faster and the soil lacks humus and moisture,
4. The lower horizons of the soil are occupied by kankar because of increasing calcium content downward.
5. These soils can become cultivable if irrigation facilities are made available as has been in the case of western Rajasthan.

**2. Places :**

1. These soils are found in arid areas of Rajasthan, Punjab and Haryana.

**(2) Forest soils :**

**1. Features :**

1. They are found in mountainous area,
2. They are loamy and silty in valley slides and coarse grained in the upper slopes,
3. In the snow covered areas of the Himalayas they are acidic with low humus content.

**2. Places :** They are found in the hilly and mountainous areas where sufficient rain forests are available. These places are Meghalaya, Arunachal Pradesh, Uttarakhand, Himachal

Pradesh and Jammu and Kashmir. The soils found in the lower parts of the valleys particularly on the river terraces and alluvial fans are fertile.

**Question 140.**

What is soil erosion? Write human activities that lead to soil erosion.

**Or**

Describe the causes for soil erosion.

**Answer:**

1. **Soil erosion:** The denudation of the soil cover and subsequent washing down is described as soil erosion.
2. **Causes for soil erosion:**
  - (1) Human activities such as deforestation, overgrazing, construction, mining and other activities are responsible for soil erosion.
  - (2) **Natural forces like wind, glacier and water also cause erosion :**
    1. The running water cuts through the clayey soils and makes gullies. The land becomes unfit for cultivation and is known as bad land. In Chambal basin such lands are called ravines.
    2. Sometimes water flows as a sheet over large areas down a slope and washes away the top soil. It is known as sheet erosion.
    3. When wind blows loose soil off flat or sloping land, it is known as wind erosion.
    4. Soil erosion is also caused by ploughing in a wrong way i.e., up and down the slope from channels for the quick flow of water leading to soil erosion.

**Question 141.**

Describe measures of soil conservation.

**Answer:**

**The measures for soil conservation are as follows :**

1. Contour ploughing i.e., ploughing along the contour lines decelerate the flow of water down the slopes.
2. **Terrace cultivation:** Steps are cut on the slopes making terraces which restrict erosion. It is done in western and central Himalayas.
3. **Strip cropping:** It divides large fields into strips. Strips of grass are left to grow between the crops.
4. Planting of trees to create shelters are called shelter belts. These shelter belts help in stabilising the desert in western India.

**Question 142.**

What is the state of India's environment as depicted by the village Sukhomajri and the district of Jhabua ?

**Or**

Describe state of India's environment with reference to village Sukhomajri and district Jhabua.

**Answer:**

1. The village of Sukhomajri and the district of Jhabua have shown that it is possible to reverse land degradation by plantation of trees. Tree density in Sukhomajri increased from 13 per hectare in 1976 to 1,272 per hectare in 1992.
2. Regeneration of the environment has led to economic well-being of the people. The annual average household income in Sukhomajri ranged from ? 10,000-15,000 between



1979 and 1984. This was due to greater resource availability, improved agriculture and animal care.

3. Madhya Pradesh government has made people the decision-makers because their participation is essential for ecological restoration. Thus, 2.9 million hectares or 1 per cent of India's land area are being greened across the state through watershed management.

### MAP QUESTION

#### Question 143.

On the map of India show the places where different types of soils are found.

**Answer:**

**The different types of soils are found as mentioned below :**

1. **Alluvial soils:** Entire northern plains, Rajasthan and Gujarat in a narrow corridor, eastern coastal plains in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri rivers.
2. **Black soils:** Deccan trap (Basalt) region i.e., plateaus of Maharashtra, Saurashtra, Malwa, Madhya Pradesh, Chhattisgarh and extend in the southeast direction along the Godavari and the Krishna valleys.
3. **Red and yellow soils:** Red soils are found in eastern and southern parts of the Deccan plateau. Yellow and red soils are found in parts of Orissa, Chhattisgarh, southern parts of the middle Ganga Plain and along the piedmont zone of the Western Ghats.
4. **Laterite soils:** Karnataka, Kerala, Tamil Nadu, Madhya Pradesh and the hilly areas of Orissa and Assam.
5. **Arid soils:** Western Rajasthan.
6. **Forest soils:** Areas of Himalayas – the soils on lower parts of the valleys on the river terraces are fertile.

