

Resources and Development

Question 1.

What do you understand by a 'Resource'? Give examples. (2015)

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 2.

“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 6.

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 7.

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 8.

Give any two examples of non-renewable resources. (2015)

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 9.

Explain four types of resources based on ownership and give one example of each type. (2014)

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 11.

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 12.

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 13.

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 14.

“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 15.

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 16.

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 17.

“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 18.

Explain three stages of 'resource planning.' (2015)

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 plan.

3 Matching the resource development plans with overall national development plan.

Question 19.

"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. (2013)

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 20.

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 21.

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 22.

Explain the concept of resource conservation as voiced by Gandhiji. (2012)

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 23.

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 24.

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:

- environmental protection and
- 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 21st 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 25.

"The future generation may not have sufficient resources as compared to the present generation". Justify the statement by giving suitable examples. (2012)

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.

Question 26.

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 27.

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 28.

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 32.

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 33.

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:

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

Question 34.

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

Answer:

Physical Factors:

- Topography
- Climate
- Soil types

Human Factors:

- Population density
- Technological capability
- Culture and traditions

Question 35.

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 36.

“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 37.

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 39.

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 42.

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 43.

Write some measures/ways to solve problems of land degradation. (2014)

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.

Question 44.

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:

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

Question 45.

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 46.

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 47.

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 48.

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 51.

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 52.

Give the distribution of alluvial soils in brief.

Answer:

The entire northern plains are made up of alluvial soils.

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

Question 53.

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 54.

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

Answer:

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

Question 55.

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

Answer:

This soil is typical of the Deccan Trap region.

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

Question 57.

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.