

Chapter-1

RESOURCES AND DEVELOPMENT

QUESTION BANK

1. Name the important renewable natural resources that supports living organisms.
2. Which among the following is not an important factor in the formation of soil: - (a)Relief (b)Human (c)Climate (d)Decomposers
3. Identify the soil: -
 - (a) Found in the eastern coastal plains.
 - (b) Common in piedmont plains (Duars, Chos, Terai)
 - (c) It has higher concentration of Kanker nodules (Banger)
4. Identify the soil: -
 - (a) Develops on crystalline igneous rocks.
 - (b) Found in eastern and southern parts of the Deccan plateau.
 - (c) Looks yellow when hydrated.
5. Identify the soil: -
 - (a) Sandy in texture. (b) Saline in nature. (c) Common salt is obtained.
6. Identify the soil: -
 - (a) Loamy and silty in valley regions
 - (b) Acidic with low humus.
 - (c) Found in areas of rain forests.
7. Identify the soil: -
 - (a) Develops with alternate wet and dry season.
 - (b) Result of intense leaching.
 - (c) Deficient in plant nutrients.
 - (d) Prone to erosion and degradation.
8. Identify the soil: -
 - (a) made up lava flows.
 - (b) made up of clayey materials.
 - (c) deep cracks help in the proper aeration of the soil.
9. Where can we find ravines in India.
10. What is sheet erosion?
11. Soil erosion can be restricted by:
 - (a) ploughing along the contour lines.
 - (b) cutting out steps on the slopes making terraces.
 - (c) growing strips of grass between the crops.
 - (e) Stabilizing the desert in western India.

12. Materials in the environment which have the potential to satisfy human needs but human beings do not have appropriate technology to access them are called _____.
13. India's territorial water extends up to a distance of _____.
14. Resources that take long geological time for their formation are called _____.
15. Resources which are surveyed and their quantity and quality have been determined for utilization are known as _____.
16. Which of the following statement is correct as regard to international resources?
 - a) Resources which are regulated by international institutions.
 - b) Resources which lie beyond the territorial waters.
 - c) Resources which are found along the international frontier.
 - d) Resources which are not yet developed.
17. Where did the First International Earth Summit held _____
18. Resources which are found in a region but have not been utilized are called _____
19. Which statement is true about the term resources: -
 - a) Resources are free gifts of nature.
 - b) They are the functions of human activities.
 - c) All those things which are found in nature.
 - d) Things which cannot be used to fulfill our needs.
20. Fossil fuels are examples of non-recyclable resources. (True/False)
21. How are the renewable resources further divided?
22. How are the resources classified on the basis of ownership?
23. Name two community owner resources.
24. Mention special feature of the sustainable development.
25. Write full form of UNCED.
26. What is resource planning?
27. Absence of which two components can hinder development of an area?
28. What resource can be acquired by a nation?
29. Burial ground is a _____ resource.
30. Which one of the following is a biotic resource? (Land/Water/Human/Soil)
31. Resources which can be renewed again are called _____.
32. In which year was the Earth Summit held?
33. Coal, iron ore, petroleum, diesel are the examples of _____ resource.
34. The oceanic resource beyond 200km of the Exclusive Economic Zone can be identified as _____.
35. From which five-year plan has India made concerned efforts for achieving the goals of resource planning.
36. What was the main contribution of the Brundtland Commission Report 1987?
 - a) Sustainable development as means for resource conservation.
 - b) Advocated resource conservation for the first time.
 - c) Presented Gandhian philosophy.
 - d) All of these.
37. Which is the ideal condition for the growth of sugarcane?
 - a) Temperature 21*c-27*c, Rainfall 75cm-100cm
 - b) Temperature below 17*c, Rainfall 50cm-75cm

- c) Temperature 25*c to 32*c, Rainfall above 200am
d) None
38. Which of the following condition can spoil tea crop?
a) Frequent showers evenly distributed over the year.
b) Frost free climate
c) Deep fertile well drained soil.
d) Clayey soil which has high water holding capacity.
39. Which crop is an important raw material for automobile industry?
40. A system of agriculture where a single crop is grown on a large area _____.
41. Golden Fiber: _____ (Cotton/Jute/Hemp/Silk)
42. Primitive subsistence farming is also known as _____.
(Mixed Farming/ Co-operative Farming/Slash-and-Burn Farming/Commercial Farming)
43. Plantation agriculture is a type of _____. (Subsistence Farming, Commercial Farming, Mixed Farming or None)
44. How much of India's population is engaged in agricultural activity?
45. Agriculture practiced on small patches of land with primitive tool is called _____.
46. Which state is well known for growing tea?
47. Milpa: Mexico, _____: Venezuela, _____: Africa, Ladang: _____.
48. Pama Dabi: _____, _____: Rajasthan, _____: Jharkhand.
49. Crops Season: -
(a) Sown in winter, harvested in summer.
(b) Wheat, barley, peas, gram, mustard.
(c) Precipitation during winter months helps in crop production.
50. Crop Season: a) Short season b) Watermelon, Muskmelon, Cucumber
51. Crop Season: a) grown with the onset of monsoon b) harvested in Sep-Oct c) Paddy, maize, jowar, bajra, cotton, jute
52. Which type of farming uses higher doses of modern inputs.
53. If rice is a commercial crop in Haryana and Punjab, in which state it is a subsistence crop?
54. Name any three important plantation crop of India.
55. How long does sugarcane take to grow?
56. India is the _____ (1/2/3/4) largest producer of rice in the world.
57. Rice requires high humidity with _____ cm of annual rainfall.
58. Which type of farming is practiced in areas with high population pressure on land?
59. Name the principal crop grown in areas of Intensive Subsistence Farming.
60. Name an annual crop i.e. which takes a year to grow.
61. India's ranking in the sugarcane production is _____.
62. _____ grows well in moist and humid climate, with rainfall more than 200cm and temperature above 25*c.
Also known as equatorial crop in India.
63. _____ is the source of Khandsari, gur and sugar.
64. _____ and _____ made possible to grow rice in areas of less rainfall.
65. Tea: Assam = _____: Karnataka
66. _____ resulted in uneconomic size of land-holding in India.

67. _____ is the staple food crop of a majority of the people in India.
68. Ravines refers to the (1) a. Bad land created at Kulu valley b. Bad land created at Chambal valley c. Bad land created at Godavari valley d. Bad land created at Ganga valley.
69. His report introduced the concept of 'Sustainable Development': (1) a. Brundtland Commission Report b. Mandal Commission Report c. Simon Commission Report d. Bretley Commission Report
70. State the importance of Rio convention. (1)

1 MARKS QUESTIONS

1. Who wrote the book 'Small is Beautiful'?
Ans. Schumacher
2. Which type of soil is found in the river deltas of the Eastern Coast?
Ans. Alluvial Soil
3. Write the two types of renewable resources.
Ans. Continuous and Biological resources
4. From which Five Year Plan has India made concerted efforts for achieving the goals of resource planning?
Ans. First Five Year Plan
5. Give any two factors which determine the land use pattern of a nation.
Ans. Topography and Population
6. How much degraded land is present in India?

Ans. 130 million hectare
7. By which name is the bad land known in Chambal basin?

Ans. Ravines
8. Name the institution which is empowered by the government of India to acquire land?
Ans. Urban Development Authorities
9. What is strip cropping?
Ans. Large fields divided into strips. Strips of grass are left to grow between the crops. This breaks up the force of the wind. This method is known as strip cropping.
10. Name the way which helps the sand dune to stabilization.
Ans. Shelter Belts have contributed significantly to the establishment of sand dunes.
11. Name the areas where terrace farming is practiced in India?
Ans. Western and central Himalayas of India
12. Why are the lower horizons of the soil occupied by Kankar?
Ans. Because of the increasing calcium contents downwards
13. Name the soil which is suitable for the cropping of cashew nuts.

Ans. Red Laterite Soil
14. Name the nutrient in which black soils is poor?

Ans. Phosphoric contents

15. Name any two nutrients which are found in black soils?

Ans. Calcium carbonate and magnesium

16. Mention the reason due to which red soils look red?

Ans. These soils develop a reddish colour due to diffusion of iron in crystalline and metamorphic rocks.

17. Name the soils which are well known for their capacity to hold moisture. Ans. Black soils

18. Which region of India is known as Basalt region?

Ans. The Deccan trap region spread over northwest Deccan plateau.

19. In which state overgrazing is the main reason of land degradation in India? Ans. Gujarat

20. Where was first international earth summit held?

Ans. Rio de Janeiro in Brazil

21. Coal, iron ore, petroleum, diesel etc. are the examples of a) Biotic resources b) Abiotic resources c) Renewable resources d) Non Renewable resources

Ans. d) Non Renewable resources

22. Which one of the following term is used to identify the old and new alluvial respectively?

a) Khadar & Tarai b) Tarai & Bangar c) Bangar & Khadar d) Tarai & Duars

Ans. c) Bangar & Khadar

23. Which one of the following soil is the best for cotton cultivation?

a) Red soil b) Black soil c) Laterite soil d) Alluvial soil

Ans. b) Black soil

24. How much percentage of forest area in the country according to the National Forest Policy. a) 33% b) 37% c) 27% d) 31%

Ans. a) 33%

25. Which type of soil develops due to high temperature and evaporation?

a) Arid Soil b) Forest Soil c) Black Soil d) Red Soil

Ans. a) Arid Soil

26. Which one of the following resources can be acquired by the Nation?

a) Potential resources b) International resources c) National resources d) Public resources

Ans. c) National resources

27. Which one of the following is responsible for sheet erosion?

a) Underground water b) Wind c) Glacier d) Water

Ans. d) Water

28. Which one of the following method is used to break up the force of wind? a) Shelter belt b) Strip Cropping c) Contour ploughing d) Terrace farming

Ans. a) Shelter belt

29. Which one of the following is the main cause of land degradation in Madhya Pradesh?

a) Mining b) Overgrazing c) Deforestation d) Over Irrigation

Ans. c) Deforestation

30. Which one of the following statements refers to the sustainable development?

a) Overall development of various resources b) Development should take place without damaging the environment. c) Economic development of people. d) Development that meets the desires of the members of all communities.

Ans. b) Development should take place without damaging the environment.

31. What steps can be taken to control soil erosion in hilly areas?

Ans. 1) Terracing on hilly area 2) Buildings Dams on hilly areas 3) Contour Farming 4) Afforestation

32. When and why was the Rio-de-Janeiro Earth summit held?

Ans. 1992 Rio-de-Janeiro (Brazil)

33. Write two characteristics each of Khadar and Bangar?

Ans. Khadar (New Alluvium) 1) New Alluvium a new soil 2) Very fertile soil less Kankar nodules

Bangar (Old Alluvium) 1) Old Alluvium or Old soil 2) Not too fertile, often contains Kankar nodules

34. What type of soil is found in river deltas of the eastern coast? Give three main features of this type of soil.

Ans. Alluvial Soil 1) Most important soil 2) Such a soil is the result of deposits of river. 3) Very fertile soil.

35. What do you, mean by land use pattern? Name the factors that determine the use of land.

Ans. Utilization of land for various purposes such as cultivation grazing of animals mining construction of roads etc. Factors 1) Topography 2) Climate 3) Human Factor 4) Accessibility

NCERT SOLUTIONS

Question 1: Multiple choice questions.

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

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

(ii) Under which of the following type of resource can tidal energy be put?

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

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

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

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

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

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

(a) Jammu and Kashmir (b) Gujarat (c) Rajasthan (d) Jharkhand

Answer: (i) (d) non-renewable

Explanation: Once they have been used up, there will be no more. Most non-renewable resources are minerals, which are mined, for example, gold, iron ore, titanium. Coal and oil are known as fossil fuels and are also non-renewable.

(ii) (a) Replenishable

Explanation: Tidal energy is a replenishable resource since tides keep coming over and over again due to the moon's force.

(iii) (c) over irrigation

Explanation: In Punjab, Haryana, western Uttar Pradesh, over irrigation is responsible for land degradation due to waterlogging leading to increase in salinity and alkalinity in the soil.

(iv) (d) Uttarakhand

Explanation: Terrace farming is done on hill slopes and Uttarakhand is the region having hill slopes and here terrace farming is practiced.

(v) (b) Gujarat

Explanation: It is mostly found in areas such as Gujarat, Madhya Pradesh and Maharashtra. It is formed by weathering of deccan basalt from last 60 million years and paleo organic carbon resource.

Question 2. Answer the following questions in about 30 words.

- i. Name three states having black soil and the crop which is mainly grown in it.
- ii. What type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.

- iii. What steps can be taken to control soil erosion in the hilly areas?
- iv. What are the biotic and abiotic resources? Give some examples.

Answer: i. Maharashtra, Gujrat, Madhya Pradesh and Chhattisgarh are states having black soil. Cotton is mainly grown in black soil. Other crops which can be grown in black soil are rice, sugarcane, wheat, Jawar, linseed etc

ii. Alluvial Soil is found in the river deltas of the eastern coast.

Three features of alluvial soil: Alluvial soils are very fertile. It contains varied amounts of sand, silt and clay. These soils contain ample amount of phosphoric acid, potash and lime so they are ideal for growing sugarcane, wheat and paddy. The regions of alluvial soils are intensively cultivated and densely populated.

iii. In hilly areas, soil erosion can be controlled by contour which refers ploughing across contour-lines, making use of terrace farming techniques and using strips of grasses to check soil erosion by wind and water.

iv. Biotic Resources: The resources which are obtained from the biosphere, from forest and the materials derived from them and have life are called Biotic Resources. For example, animals and plants including human beings. Abiotic Resources: The resources which are composed of non-living things are called Abiotic Resources. For example rocks, water, minerals, metals, wind, solar energy etc.

3. Answer the following questions in about 120 words.

- i. Explain land use pattern in India and why has the land under forest not increased much since 1960-61?
- ii. How has technical and economic development led to more consumption of resources?

Answer: (i) The use of land is determined by both physical factors such as topography, climate, soil types as well as human factors such as population density, technological capability and culture and traditions. Land resources in India are primarily divided into agricultural land, forest land, land meant for pasture and grazing, and waste land. Wasteland includes rocky, arid and desert areas and land used for other non-agricultural purposes such as housing, roads and industry. According to the recent data, about 54% of the total land area is cultivable or fallow, 22.5% is covered by forests and 3.45% is used for grazing. The rest is wasteland, with traces of miscellaneous cultivation. The land under forest has not increased since 1960–61 because in the post-independence era demand for more land to expand agriculture, mainly after Green Revolution, developmental works and infrastructural facilities, led to clearance of forests areas. Industrialisation and urbanisation also decreased the forest area. Thus, land under forest has increased by only about 4% since 1960-61.

(ii) Technical and economic development has led to more consumption of resources on account of various factors such as: Technological development provides sophisticated equipment. As a result, production increases ultimately leading to consumption of more resources. Technological advancement leads to the conversion of more natural resources into useful resources thus the consumption also increases. Technological development also leads to economic development. When the economic condition of a country rises, the needs of people also rise. It again results in more consumption of resources. Economic development provides favourable environment for the development of latest technologies. It helps to make or convert

various materials found around us into resources. Finally, it results in the consumption of newly available resources too.

03 MARK QUESTIONS IN ABOUT 30 WORDS.

1. Name of three states having black soil and the crop which is mainly grown in it.
2. What type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.
3. What steps can be taken to control soil erosion in the hilly areas?
4. Name three states having black soil and the crop which is mainly grown in it.
5. What type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.
6. What steps can be taken to control soil erosion in the hilly areas?
7. What are the biotic and abiotic resources? Give some examples.
8. When and why was the Rio-de-Janero Earth summit held?
9. Write two characteristics each of Khadar and Bangar?
10. What type of soil is found in river deltas of the eastern coast? Give three main features of this type of soil.
11. What do you, mean by land use pattern? Name the factors that determine the use of land.
12. How do rocks play an important role in the formation of soil? (3)
13. Explain any three steps that can be taken to solve the problem of land degradation. (3)
14. What are the different factors that determine land use? (3)
15. Why does the pattern of net sown area vary from one state to another? (3)
16. What was the main contribution of the Brundtland Commission Report, 1987?

Ans. a. The seminal contribution with respect to resource conservation at the global level was made by the Brundtland Commission Report, 1987.

b. This report introduced the concept of 'Sustainable Development' and advocated it as a means for resource conservation, which was substantially published in a book, entitled Our Common Future.

17. Define resources? Name some resources?

Ans. a. 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.

b. Land, Soil, Tree and air are some examples of resources.

18. Explain the interdependent relationship between nature, technology and institutions.

Ans. a. The process of transformation of things available in our environment involves an interdependent relationship between nature, technology and institutions.

b. Human beings interact with nature through technology and create institutions to accelerate their

economic development.

c. Resources are the functions of activities.

19. "Resources are a function of human activities". Elaborate the statement with suitable arguments.

Ans. a. Natural resources are the free gifts of nature but many manmade resources are used by the humanity.

b. Resources are functions of human activities. Human beings themselves are essential components of resources.

c. They transform material available in our environment into resources and use them.

20. Classify resources on the basis of origin. Give examples.

Ans. a. Biotic resources: These are obtained from biosphere and have life such as human beings, flora and fauna, fisheries, livestock etc.

b. Abiotic resources: All those things which are composed of non-living things are called abiotic resources. For example, rocks and metals.

21. Classify resources on the basis of exhaustibility. Write examples.

Ans. a. Renewable resources: The resources which can be renewed or reproduced by physical, chemical or mechanical processes are known as renewable resources: For example, solar and wind energy, water, forests and wildlife, etc.

b. Non Renewable resources: These occur over a very long geological time. Minerals and fossil fuels are examples of such resources. These resources take millions of years in their formation. Some of the resources like metals are recyclable and some like fossil fuels cannot be recycled and get exhausted with their use.

22. List the problems caused due to the indiscriminate use of resources by human being?

Ans. a. Depletion of resources for satisfying the greed of few individuals.

b. Accumulation of resources in few hands, which, in turn, divide the society into two segments i.e. 'haves' and 'have nots' or rich and poor.

c. Indiscriminate exploitation of resources has led to global ecological crises such as, global warming, ozone layer depletion, environmental pollution and land degradation.

23. What was agenda 21?

Ans. a. It is the declaration signed by world leaders in 1992 at the United Nations Conference on

Environment and Development (UNCED).

- b. It focuses on attaining Global Sustainable Development.
- c. It's mainly aim is to fight the environmental damage, poverty, diseases through global cooperation on common interest, mutual needs and shared responsibilities.
- b. An important and distinct aim of the agenda is that every local government should draw its own local Agenda 21.

24. Write a short note on Rio de Janeiro Earth Summit, 1992.

Ans. a. Rio de Janeiro was the meeting ground for the first International Earth Summit.

b. More than 100 heads of state met at this famous conference which was convened in June 1992 to address the urgent problems of environmental protection and socio-economic development at the global level.

c. A declaration on Global Climatic change and the Biological Diversity was signed by the assembled leaders.

d. They adopted Agenda 21 and endorsed the global forest Principles to achieve Sustainable Development in the 21st century.

25. What is resource planning? Why is resource planning essential?

Ans. a. Resource planning: Resource planning is the widely accepted strategy for judicious use of resources.

b. Resource planning is essential for sustainable existence of all forms of life.

c. Sustainable existence is a component of sustainable development.

26. Define sustainable development? What are their importance's?

Ans. a. Sustainable Development: Sustainable 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.

b. It is essential for sustained quality of life.

c. If the present trend of resource depletion by a few individuals and countries continues, the future of our planet is in danger. So sustainable development is very important to save our planet and our self.

27. Explain the three steps that involved in the complex process of resource planning? Ans. a. Identification and inventory of resources across the regions of the country. This involves surveying,

mapping and qualitative and quantitative estimation and measurement of the resources.

b. Evolving a planning structure endowed with appropriate technology, skill and institutional set up for implementing resource development plans.

c. Matching the resource development plans with overall national development plans.

28. How far it is correct to say that the availability of resources is a necessary condition for the development of any region? Explain.

Ans. The availability of resources is a necessary condition for the development of any region, but mere availability of resources in the absence of corresponding changes in technology and institutions may hinder development. There are many regions in our country that are rich in resources but these are included in economically backward regions. On the contrary there are some regions which have a poor resource base but they are economically developed.

29. Explain the relationship between the process of colonization and rich resources of colonies.

Ans. a. The History of colonization reveals that rich resources in colonies were the main attractions of the foreign traders.

b. It was primarily the higher level of technological development of colonizing countries that helped them to exploit resources of other regions and established their supremacy over colonies.

c. There for resources can contribute to development only when they are accompanied by appropriate technological development and institutional changes.

30. What are the different factors that determine land use?

Ans. a. Both physical and human factors determine the land use pattern of any area.

b. Physical factors include topography, climate, and soil types.

c. Human factors include population density, technological capability and cultural traditions.

31. What type of relief covers most of India's land? Explain.

Ans. a. India has land under a variety of relief features, namely: mountains, plateaus, plains and islands.

b. About 43 per cent of land area is plain, which provides facilities for agriculture and industry.

c. Mountains account for 30 per cent of the total surface area of the country and ensure perennial flow of rivers, provides facilities of tourism and ecological aspects.

D. About 27 per cent of the area of the country is plateau region. It possesses rich reserves of minerals, fossil fuels and forests.

32. What is the reason behind the availability of Land use data for only 93 percent of the total geography area of India?

Ans. a. Total geographical area of India is 3.28 million sq km land use data, however is available only for 93 per cent of the total geographical area.

b. Because the land use reporting for most of the north-east states except Assam has not been done fully.

c. Moreover, some areas of Jammu and Kashmir occupied by Pakistan and China have also not been surveyed.

33. Why does the net sown area vary from one state to another?

Ans. a. There are wide variations in the pattern of net sown area from one state to another state.

b. If we compare Haryana and Punjab with Arunachal Pradesh, Mizoram, Manipur and Andaman and Nicobar Islands there is a great disparity.

c. In Punjab and Haryana the net sown area is 80% of the total area but in other mentioned states it is less than 10% of the total area.

d. The reasons for these differences are many, e.g., climate, soil, relief, irrigation facilities.

34. Distinguish between Khadar and Bhangar. Ans.

Khadar Bhangar

1. The khadar soils are found in the low areas of valley. 1. The Bhangar soils are found in the higher reaches.

2. These soils are finer in texture. 2. These are coarser in texture.

3. These soils are more fertile. 3. These soils are less fertile.

4. These soils are known as New alluvial. 4. These soils are known as old alluvial.

35. How is land a natural resource of utmost importance? Explain with suitable arguments.

- Ans. a. All economic activities are performed on land.
b. It supports natural vegetation and wildlife.
c. It is used for transportation and communication system.
d. Most of the minerals are formed in land.
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36. What is soil erosion? Explain the major types of soil erosion?

- Ans. a. Soil Erosion: Soil erosion is the removal of soil by the forces of nature like wind and water is called soil erosion. This can also be described as denudation of soil cover and subsequent washing down. Following are its two types:
b. Wind Erosion: Wind blows loose soil off flat or sloping land. This is known as wind erosion.
c. Water Erosion: When running water is responsible for the removal of the top most layer of the earth that is known as water erosion.
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37. Explain the two types of water erosion.

- Ans. a. Sheet Erosion: When the top layer of the soil is removed over a large area by the running water is called as sheet erosion. In such cases the top soil is washed away.
b. Gully erosion: The running water cuts through the clayey soils and makes deep channels as gullies. The land becomes unfit for cultivation and is known as bad land. In Chambal basin such lands are called ravines.
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38. Which type of soil is found in the river deltas of the eastern coast? Give three main features of this type of soil.

- Ans. Alluvial soil is found in the river deltas of the eastern coast.
a. The alluvial soil consists of various proportions of sand, silt and clay.
b. According to their age alluvial soil can be classified as old alluvial and new alluvial to well-connected developers.
c. Due to its high fertility, region of alluvial soils is intensively cultivated and densely populated.

39. Elucidate the views of Gandhiji regarding the conservation of resources.

Ans. a. Gandhiji was very apt in voicing his concern about resource conservation.

b. He said, "There is enough for everybody's need and not for anybody's greed.

c. He placed the greedy and selfish individuals and exploitative nature of modern technology as the root cause for resource depletion at the global level.

D. He was against mass production and wanted to replace it with the production by the masses.

40. Why is resource planning essential?

Ans. a. As the resources are limited, so their planning is quite necessary so that we can use them properly and at the same time save them for our coming generations.

b. For the balanced development of the country, the planning of the resources becomes very essential.

c. A resource planning is also necessary to save their exploitation or unlawful exploitation by the unscrupulous elements of the society.

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

Ans. a. Some human activities such as deforestation, overgrazing, mining and quarrying too have contributed significantly in land degradation.

b. Mining sites are abandoned after excavation work is complete leaving deep scars and traces of over-burdening.

c. Deforestation due to mining has caused severe land degradation.

D. Over irrigation is responsible for land degradation due to water logging leading to increase in salinity and alkalinity in the soil.

42. Suggest some ways to solve the problems of land degradation.

Ans. a. Afforestation and proper management of grazing can help to some extent to solve the problem of land degradation.

b. Planting of shelter belts of plants, control on over grazing, stabilization of sand dunes by growing thorny bushes is some of the methods to check land degradation.

c. Proper management of waste lands, control of mining activities, proper discharge and disposal of industrial effluents and wastes after treatment can reduce land and water degradation in industrial and suburban areas.

43. How do rocks play an important role in the formation of soil? Ans. a. Parent rock and bed rock are main factors in the formation of soil.

b. Climatic conditions with the parent rock material are the important factors for the formation of black soil. The Deccan trap region is made up of lava flows.

c. Red soil develops on crystalline igneous rocks in areas of low rainfall.

44. What is meant by two types of natural resources? Give one example of each.

Ans. a. All gifts of nature which are useful in making the life of human beings comfortable and worth living are known as natural resources.

b. Their two main types are biotic and abiotic resources.

c. Forests and animals are biotic resources while land water and soil are abiotic natural resources.

45. What is resource planning? Write any three utility of resources.

Ans. Resource Planning: Resource Planning is a technique of skill of proper utilization of resources.

1. They are beneficial to human being

2. Different types of things are made by them.

3. Resources are limited. Do not waste the great gifts of the nature.

46. Distinguish between the Renewable and Non-Renewable Resources. Ans. Renewable Resources

1) These Resources are those which once mined and used can be regenerated.

2) These Resources which may be obtained continuously.

Example: Land, water plants etc.

Non Renewable Resources.

1) These Resources are those which once mined and used cannot be regenerated.

2) All mineral Resources are limited.

Example: Coal, Mineral-oil etc.

47. Describe briefly the distribution of soils found in India.

Ans. (1) Alluvial Soil

(2) Black Soil

(3) Red and Yellow Soil

(4) Laterite Soil

(5) Mountain Soil

(6) Desert Soil (Explain it)

48. What is regur soil? Write its two features. Mention any two regions where regur soil is found.

Ans. Regur soil – Black Soil Features

- 1) made up extremely fine
 - 2) have good capacity to hold moisture.
 - 3) develop deep cracks during hot weather.
 - 4) rich in calcium carbonate, potash and lime Regions
- 1) Maharashtra – Malva Plateau
 - 2) Madhya Pradesh and Chhatisgarh Plateau

05 MARK QUESTIONS IN ABOUT 120 WORDS.

1. Explain land use pattern in India and why has the land under forest not increased much since 1960-61?
2. How has technical and economic development led to more consumption of resources?
3. Classify resources on the basis of ownership into four categories. Mention the main feature of each.
4. What is resource planning? Write any three utility of resources.
5. Distinguish between the Renewable and Non- Renewable Resources.
6. Describe briefly the distribution of soils found in India.
7. What is regur soil? Write its two features. Mention any two regions where soil is found.
8. Provide a suitable classification of resources on the basis of ownership. Mention main features of any three types of such resources. (5)
9. Classify resources on the basis of ownership with example.

Ans. a. Individual resources: These are owned privately by individuals. Many farmers own land which allotted to them by government against the payment of revenue. People own plots, houses and other property.

b. Community owned Resources: There are resources which are accessible to all the members of the community. Village commons, public parks, burial ground, playgrounds in urban areas are de facto accessible to all the people living there.

c. National resources: All the resources belong to the nation. The country has legal power to acquire even private property for public good. We have seen roads, canals, railways being constructed on fields owned by some individuals. Urban Development Authorities get empowered by the government to acquire land.

d. International Resources: There are international institutions which regulate some resources. The oceanic resources beyond 200 km of the exclusive Economic Zone belong to open ocean and no individual country can utilize these without the concurrence of international institutions.

10. Classify resources on the basis of state of development with example.

Ans. a. Potential Resources: Resources which are found in a region, but have not been utilized due to the lack of capital. For example, the western parts of India particularly Rajasthan and Gujarat have enormous potential for the development of wind and solar energy, but so far these have not been developed properly.

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

c. Stock: material in the environment which have the potential to satisfy human needs but human being do not have the appropriate technology to access these, are included among stock. For example, 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 technology to use them for this purpose. Hence it can be considered as stock.

d. Reserves: Reserves are the subset of stock, which can be put into use with the help of existing technology but their use has not been started. These can be used for meeting future requirements.

11. Why is resource planning important in the context of a country like India?

Ans. a. India has enormous diversity in the availability of resources.

b. There are regions which are rich in certain types of resources but are deficient in some other resources.

c. There are some regions which can be considered self-sufficient in terms of availability of resources and there are some regions which have acute shortage of some vital resources.

d. For example the states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in Minerals and coal deposits. Arunachal Pradesh abundance of water resources but lack of infrastructural development.

e. The state of Rajasthan is very well endowed with solar and wind energy but lacks in water resources.

f. The cold desert of Ladakh is entirely isolated from the rest of the country.

12. How has technical and economic development led to more consumption of resources?

Ans. a. Human beings interacted with nature through technological and create institutions to accelerate their economic development.

b. As more technological development occurs there is increased need for inputs and utilization of resources.

c. Technical and technological development is closely linked to economic development. d. For example, more factories providing employment to more people are a necessity. For the factory land and labour is used. For this mining of minerals and metals increases.

13. Explain the land use pattern in India?

Ans. a. The net sown area in India has decreased from 45.26% to 43.41%. This means that more and more agricultural land is being shifted to other activities.

b. The pattern of the net sown area varies gently from one state to another. In Punjab and Haryana the net sown area is 80% of the total area but Arunachal Pradesh, Mizoram, Manipur and Andaman and Nicobar Islands, it is less than 10% of the total area.

c. The area under forests has been increased from 18.11% in 1960-61 to 22.57% in 2000-2003 and to 23% in 2005-06 yet it is far below than the scientific norms.

d. The land under permanent pastures is very low, i.e., only 3.45%.

e. Area under fallow land has also decreased which shows, that subsistence agriculture is being replaced by commercial agriculture.

14. Explain any five proper farming techniques which can be used for soil conservation.

Ans. a. Strip Cropping: To counter the effect of wind the practice of strip cropping is followed to stop wind erosion. Large fields are divided in strips. Grass in strips is left to grow between the crops.

b. Contour Ploughing: Ploughing along the contour lines does not let water run down the slopes. This technique involved ploughing along contours, so that the furrows follow lines linking points of the same height. Such furrows halt the downward flow of water and reduce erosion.

c. Terrace Farming: Since ancient times farmers have built terraces or steps up a hillside creating several levels of farms. Hill slopes are cut into a number of terraces having horizontal top and steep slopes on the back and front.

d. Crop rotation: If the same crop is sown in the same field, year after year, this consumes particular nutrients from the soil making it infertile. Crop rotation can check the type of erosion.

e. Shelter Belts: Planting trees to create shelter also works in a similar way. Rows of such trees are called shelter belts. These shelter belts have contributed significantly to the stabilization of sand dunes and in establishing the desert in western India.

15. How is red soil formed? Mention its features.

Ans. a. Formation: most of the red soils have come into existence due to weathering of ancient crystalline igneous rocks.

b. Soils are loamy in deep depressions and in upland. They consist of loose gravels and highly coarse materials.

c. These soils develop a reddish colour due to diffusion of iron in crystalline and metamorphic rocks.

d. It looks yellow when it occurs in a hydrated form.

e. This soil is found in the areas of low rainfall in the eastern and southern parts of the Deccan plateau.

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

Ans. Alluvial soil is most widely spread and important soil of India. In fact, the entire northern plains are made of alluvial soils.

a. These soils have been deposited by three important Himalayan river systems-the Indus, the Ganga and the Brahmaputra.

b. The alluvial soil consists of various proportions of sand, silt and clay.

c. According to their age alluvial soil can be classified as old alluvial and new alluvial.

d. Alluvial soils as a whole are very fertile. Mostly these soils contain adequate proportion of potash, phosphoric acid and lime which are ideal for the growth of sugarcane, paddy, wheat and other cereal and pulse crops.

e. Due to its high fertility, region of alluvial soils is intensively cultivated and densely populated.

17. Which type of soil is ideal for growth of cotton? What are the main characteristics of this type of soil? Name some areas where they found.

Ans. Black soil is ideal for the growth of cotton soil. Following are its characteristics:

- a. Black soils are also known as 'regur' soil or black cotton soils.
- b. Such a soil is ideal for growing cotton and hence the name.
- c. They have extremely good moisture retention capacity but become sticky when wet.
- d. These soils are difficult work upon unless tilled during pre-monsoon periods or just after the first shower.
- e. Black soils are rich in soil nutrients such as calcium carbonate, magnesium, potash and lime but poor in phosphoric contents.
- f. This soil is found in Deccan trap areas. This includes Maharashtra, Western Madhya Pradesh, Gujarat, and Chhattisgarh, some parts of Karnataka, Andhra Pradesh and Tamil Nadu.

18. What is soil? Analyze the four main factors which help in the formation of soil.

Ans. Soil: Soil is the most important renewable natural resource. It is the medium of plant growth and supports different types of living organisms on the earth. The soil is a living system. It takes millions of years to form soil up to a few cm in depth.

- a. Relief, parent rock or bed rock, climate, vegetation and other forms of life and time are important factors in the formation of soil.
- b. Various forces of nature such as change in temperature, actions of running water, wind and glaciers, activities of decomposition etc., contribute to the formation of soil.
- c. Chemical and organic changes which take place in the soil are equally important. d. Soils also consist of organic (humus) or inorganic materials