

RESOURCES AND DEVELOPMENT

Q:1 Read the text given below and answer the questions that follow:

Planning is the widely accepted strategy for judicious use of resources. It has importance in a country like India, which has enormous diversity in the availability of resources. There are regions which are rich in certain types of resources but are deficient in some other resources. There are some regions which can be considered self-sufficient in terms of the availability of resources and there are some regions which have acute shortage of some vital resources. For example, the states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits. Arunachal Pradesh has abundance of water resources but lacks in infrastructural development. The state of Rajasthan is very well endowed with solar and wind energy but lacks in water resources. The cold desert of Ladakh is relatively isolated from the rest of the country. It has very rich cultural heritage but it is deficient in water, infrastructure and some vital minerals. This calls for balanced resource planning at the national, state, regional and local levels.

1. In which among the following States of India, coal deposits are abundantly available?

- a. Madhya Pradesh
- b. Chhattisgarh
- c. Jharkhand (Ans)**
- d. Rajasthan

2. In which among the following States you may find suitable amount of Water Deposits.

- a. Rajasthan
- b. Ladakh
- c. Arunachal Pradesh (Ans)**
- d. None of the above

3. Which state lacks water resources?

- a. Madhya Pradesh

- b. Haryana
- c. Punjab
- d. Rajasthan (Ans)**

4. Rajasthan is very well endowed with

- a. Wave energy
- b. Solar and wind energy (Ans)**
- c. Geothermal energy
- d. Tidal energy

5. Why do we need resource planning?

- a. Because of enormous diversity in the availability of resources (Ans)**
- b. Because we need to think of future generations
- c. We need to consider materials in the environment which have the potential to satisfy human needs
- d. The need to collect materials and resources and then using them accordingly

6. Strategy for judicious use of resources is

- a. Resources Development
- b. Resources Management
- c. Resources Conservation
- d. Resources Planning. (Ans)**

Q.2: Read the text given below and answer the questions that follow:

Potential Resources: Resources which are found in a region, but have not been utilised. 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.

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.

Stock: Materials in the environment which have the potential to satisfy human needs but human beings 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 technical 'know-how' to use them for this purpose. Hence, it can be considered as stock

2.1 Potential and development resources are categories under which type of resources?

- a. On the basis of origin
- b. On the basis of exhaustibility
- c. On the basis of ownership
- d. On the basis of status of development (Ans)**

2.2 If a person knows about the presence of a resource in abundance at a place but is not able to harness it due to lack of technical know-how use or any other problem then that resource would be known as which of the following resources?

- a. Abiotic resource
- b. International resource
- c. Community resource

d. Stock resource (Ans)

- 2.3 Coal , natural gas , petroleum , water etc are example of which type of given resources ?
- Potential resource
 - Community owned resource
 - Non-renewable resource(Ans)**
 - Biotic resource

- 2.4 Which are the main factors that determine creation of a resource? Identify the correct options.
- Nature and technology
 - Nature and human beings
 - Nature, human beings and technology (Ans)**
 - Technology and human beings

2.5 There are some regions of India where availability of resources is sufficient, but in some regions, there are acute shortage of important resources. Identify which of the following region is deficient in water resources.

- Jharkhand
- Rajasthan(Ans)**
- Ladakh
- Arunachala Pradesh

3. Read the text given below and answer the questions that follow:

At the international level, the Club of Rome advocated resource conservation for the first time in a more systematic way in 1968. Subsequently, in 1974, Gandhian philosophy was once again presented by Schumacher in his book Small is Beautiful. The seminal contribution with respect to resource conservation at the global level was made by the Brundtland Commission Report, 1987. This report introduced the concept of ‘Sustainable Development’ and advocated it as a means for resource conservation, which was subsequently published in a book entitled Our Common Future. Another significant contribution was made at the Earth Summit at Rio de Janeiro, Brazil in 1992.

3.1 Who wrote the book ‘Small is Beautiful’?

- M K Gandhi
- Schumacher (Ans)**
- G. Brundtland
- J L Nehru

3.2 What did Club of Rome advocate ?

- Resources utilisation
- Resources development
- Resources conservation(Ans)**
- Resource exploitation

3.3 What is the theme of the book “Our Common Future”?

- Resources exploitation
- Resources development
- Resources planning
- Sustainable development (Ans)**

- 3.4 Which of the following statements about Brundtand Commission Report is correct?
- It was published in 1987.
 - It made seminal contribution with respect to resource conservation at global level.
 - This report introduced the concept of Sustainable development.
 - All of these.(Ans)**

- 3.5 In which country was the first Earth Summit held?
- India
 - USA
 - Brazil (Ans)**
 - Argentina

4. Read the text given below and answer the questions that follow:

This is the most widely spread and important soil. In fact, the entire northern plains are made of alluvial soil. These have been deposited by three important Himalayan river systems– the Indus, the Ganga and the Brahmaputra. These soils also extend in Rajasthan and Gujarat through a narrow corridor. Alluvial soil is also found in the eastern coastal plains particularly in the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri rivers.

4.1 Name the soil which is being described in the above paragraph.

- Black soil
- Alluvial soil(Ans)**
- Laterite soil
- Forest soil

4.2 This soil is mainly good for cultivation of

- Sugar cane
- Paddy
- Wheat
- All of the above (Ans)**

4.3 This soil have been deposited by which river system?

- Godavri – Krishna – Ioin
- Chambal- Yamuna – Narmada
- Brahmaputra – Godavari – Banas
- Brahmaputra - Ganga – Indus (Ans)**

4.4 Where do deltas form?

- At the start of a river
- Where a river empties into a larger body of water(Ans)**
- Where rivers carve deep into the Earth's surface
- At the point where two rivers join together

1 Mark 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 looks 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) Khadas & Tarai b) Tarai & Bangar
c) Bangar & Khadar d) Tarai & Dvars**

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. Name three states having black soil and the crop which is mainly grown in it.

Ans. 31 Maharashtra, Madhya Pradesh and Chhattisgarh are states having black soil. Cotton is mainly grown in black soil.

Multiple choice questions.

1) The pattern of the net sown area varies greatly from one state to another. It is over 80 per cent of the total area in _____.

- a) Madhya Pradesh
- b) Assam
- c) Rajasthan
- d) Punjab**

Answer: Option (d)

2) Land which is left uncultivated for more than 5 agricultural years is known as _____.

- a) Culturable waste land**
- b) Barren land
- c) Pastures
- d) Fallow Lands

Answer: Option (a)

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

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

Answer:

Over irrigation

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

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

Answer:

Uttarakhand

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

- (a) Jammu and Kashmir

(b) Maharashtra(Ans)

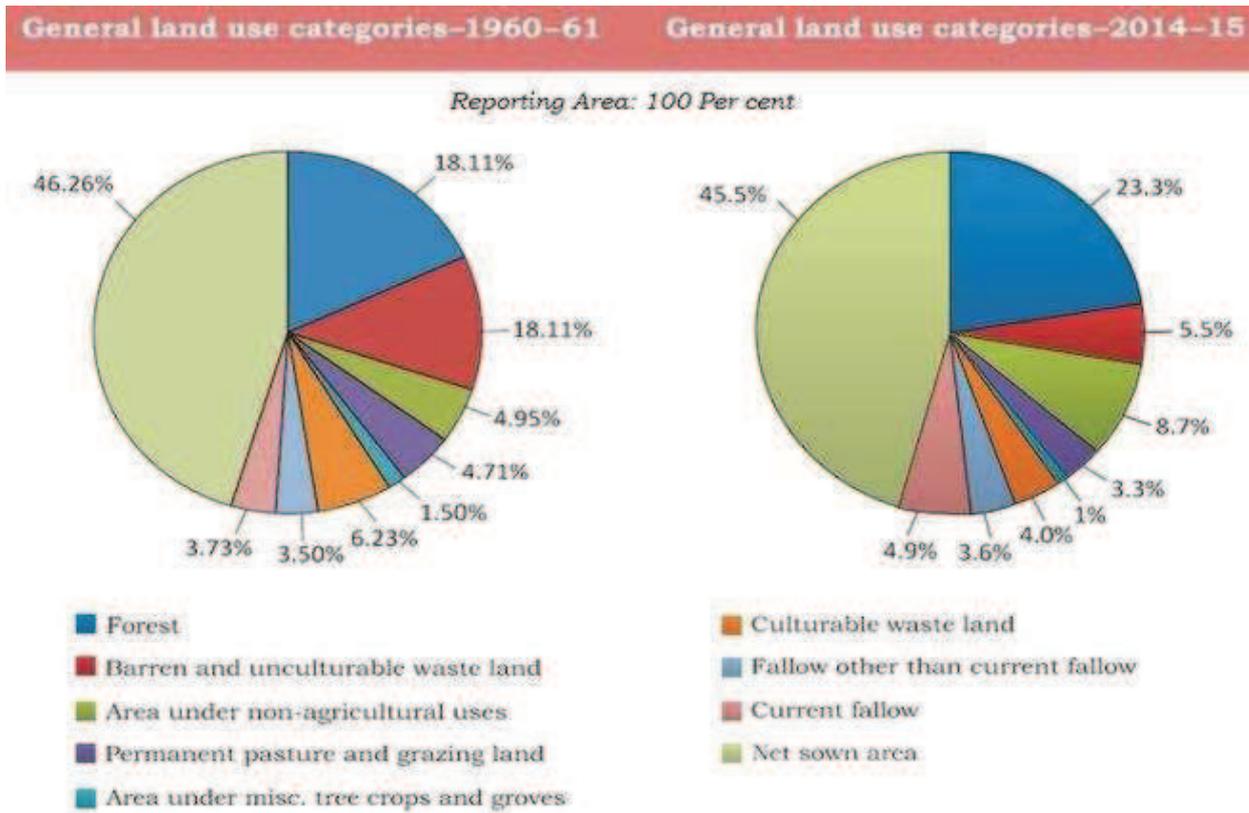
(c) Rajasthan

(d) Jharkhand

Answer:

Maharashtra

6: Study the following pie diagram and answer the following:



What percentage increase is seen in area under **forest** in the year 2014-15 from base year 1960-61?

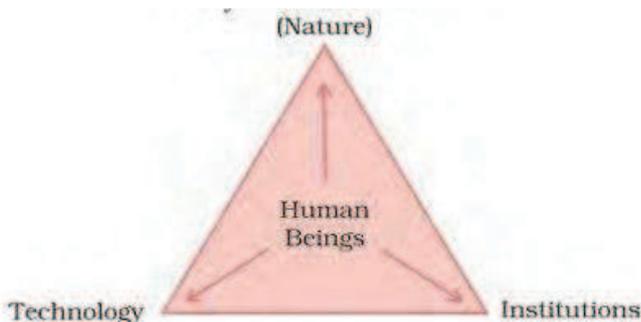
(A) 5.19(Ans)

(B) 3

(C) 4.1

(D) 5.16

7. Observe the following image given below:-



Transformation of things available in our environment involves an interactive relationship between

- a. Nature and technology
- b. Nature, technology and institutions(Ans)
- c. Nature and institutions
- d. Environment and human beings

8. Why is resource planning necessary in India?

- a. Due to large availability of resources
- b. Due to limited availability of resources
- c. Due to enormous diversity in the availability of resources (Ans)
- d. Due to corruption and mismanagement

9. “There is enough for everybody’s need but not for anybody’s greed”. Who said this?

- a. Jawahar Lal Nehru
- b. Atal Bihari Vajpai
- c. M K Gandhi (Ans)
- d. Sunder Lal Bahuguna

10. Which one of the following statements is true about the term resources?

- a. Everything available in our environment
- b. Everything available in our environment which can be used to satisfy our needs
- c. Everything available in our environment which can be used to satisfy our needs, provided it is technologically accessible, economically feasible and culturally acceptable.(Ans)
- d. All of these

11: What was the main cause of colonization?

- a. Rich resources in colonies
- b. Higher technological know- how in colonizing countries which helped them to exploit those resources
- c. Both of these (Ans)
- d. None of these

12.: The process of creation of resources involves which of the following ?

- a. Nature
- b. Technology
- c. Institutions
- d. All of these(Ans)

13. The ocean resources till 200 nautical miles are classified under which zone?

- a. Exclusive Economic Zone(Ans)
- b. Export-processing Zone
- c. Special Economic Zone
- d. None of these

14) On the basis of the status of development, resources can be classified as _____.

- a) Potential
- b) Developed Stock
- c) Reserves
- d) All of the above(Ans)

Answer: (d)

15) Which of the following statements are true?

- a) Abiotic resources are obtained from the biosphere and have life, such as human beings, flora and fauna.
- b) Biotic resources are all those things which are composed of non-living things like rocks and metals.
- c) Both the above statements are false.(Ans)
- d) Both the options (a) and (b) are true.

Answer: Option (c)

16) Minerals and fossil fuels are examples of non-renewable resources which take _____ for their formation.

- a) Hundreds of years
- b) Thousands of years
- c) Millions of years(Ans)
- d) Just a year

Answer: Option (c)

17) All the minerals, water resources, forests, wildlife, land within the political boundaries and oceanic area up to _____ from the coast termed as territorial water and resources therein belong to the nation.

- a) 20 nautical miles
- b) 25 nautical miles
- c) 15 nautical miles
- d) 12 nautical miles(Ans)

Answer: Option (d)

18) _____ are the subset of the _____, which can be put into use with the help of existing technical 'know-how', but their use has not been started.

- a) Reserves, Developed Resources
- b) Stocks, Reserves
- c) Developed Resources, Stock
- d) Reserves, Stock(Ans)

Answer: Option (d)

19) In June 1992, more than 100 heads of states met in _____ in Brazil, for the first International Earth Summit.

a) Rio de Janeiro(Ans)

b) São Paulo

c) Brasilia

d) Curitiba

Answer: Option (a)

20) The Rio Convention endorsed the global Forest Principles and adopted _____ for achieving Sustainable Development in the 21st century.

a) Agenda 20

b) Agenda 21(Ans)

c) Agenda 19

d) Agenda 22

Answer: Option (b)

21) Which of the following statements about Agenda 21 is true?

a) It aims at achieving global sustainable development.

b) It is an agenda to combat environmental damage, poverty and disease through global cooperation.

c) One of the major objectives of Agenda 21 is that every local government should **not** draw its own local Agenda 21.

d) Option (a) and (b).(Ans)

Answer: Option (d)

22) The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and _____ deposits.

a) Coal(Ans)

b) Gold

c) Silicon

d) None of the above

Answer: Option (a)

23) The state of Rajasthan is very well endowed with solar and _____ energy but lacks in water resources.

a) Geothermal

b) Hydro

c) Wind(Ans)

d) Tidal

Answer: Option (c)

24) The Brundtland Commission Report published in _____, shared ideas about sustainable development and how it could be achieved.

a) 1997

b) 1987(Ans)

c) 1992

d) 1977

25. Resources which are surveyed for their quality and quantity and have been determined for utilization are called _____.

A. DEVELOPE RESOURCES.

26 – UNCED stands for

- (a) United Nations Convention on Energy and Development.
- (b) United Nations Conference on Environment and Development.
- (c) United Nations Commission on Energy and Development.
- (d) None of these.

Ans – (b) United Nations Conference on Environment and Development.

27.–Name the soil which is the most retentive of moisture ?

- (a) Alluvial Soil.
- (b) Black Soil.
- (c) Red & Yellow Soils.
- (d) Arid Soils.

Ans – (b) Black Soil.

28 – Which one of the following is an example of Cultivable Wasteland ?

- (a) Barren Wasteland .
- (b) Current Fallow Land.
- (c) Uncultivable Land.
- (d) Net Sown Area.

Ans – (c) Uncultivable Land.

29 – The Soil type in which one can find the piedmont plains such as Duars, Chos and Terai is

- (a) Red & Yellow Soils.

(b) Black Soil.

(c) Alluvial Soil.

(d) Arid Soils.

Ans – (c) Alluvial Soil.

30– Indiscriminate exploitation of resources has led to global ecological crises. Which of the following is not related to the above statement ?

(a) Environmental Pollution.

(b) Global Warming.

(c) Land Degradation.

(d) Ozone Layer Maintenance

Ans – (d) Ozone Layer Maintenance

31. Identify the action plan with regard to Sustainable Development with the help of clues given below.

- It is the declaration signed by world leaders in 1992.
- It was held at United Nations Conference on Environment and Development (UNCED).
- It aims at achieving global, sustainable development.
- It was an agenda to combat environmental damage, poverty, disease through global co-operation and common interests.

Options

(a) Earth Summit

(b) Agenda 21

(c) Five Year Plan

(d) Our Common Future

32. Match the following options in Column I with those in Column II.

Column I

Column II

- | | |
|----------------|------------------|
| A. Regur soil | 1. Alluvial soil |
| B. Kankar | 2. Black soil |
| C. Khadar soil | 3. Laterite soil |
| D. Brick soil | 4. Arid soil |

Choose the correct option from the options given below

- | | | | | | | | |
|-------|---|---|---|-------|---|---|--------|
| A | B | C | D | A | B | C | D |
| (a) 4 | 3 | 2 | 1 | (b) 1 | 3 | 2 | 4 |
| (c) 4 | 2 | 3 | 1 | (d) 2 | 4 | 1 | 3(Ans) |

33. Read the following statement and choose the correct option.

- I. The denudation of the soil cover and subsequent washing down is described as 'Soil erosion'.
- II. The land becomes unfit for cultivation is known as 'Sheet erosion'.
- III. Sheet erosion is also caused due to defective methods of farming.
- IV. Wind blows loose soil off flat or sloping land known as 'wind erosion'.

Options

- (a) Only II is correct (b) Only IV is correct
- (c) I and III are correct (d) I and IV are correct

Directions (Q. Nos. 34-36) In the question given below, there are two statements marked as

Assertion (A) and Reason (R). Read the statement and choose the correct option.

Codes

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true, but R is not the correct explanation of A.
- (c) A is true, but R is false.
- (d) A is false, but R is true.

34. Assertion (A) Alluvial soil is loamy and permeable.

Reason (R) It does not develop cracks in the dry hot season.

35. Assertion (A) Human beings interact with nature through technology and create institutions to accelerate their economic development.

Reason (R) Resources are essential for human development.

36. Assertion (A) Economic Development of a nation depends mainly on the richness, development and management of resources.

Reason (R) Over-population results in over-exploitation of resources

Answers. 34 a 35 a 36 a

Q.6 THREE MARKS QUESTION.

1. Why is conservation of energy sources essential in India? Give any three reasons.

Ans. 1. Energy is a basic requirement for economic development.

2. India is presently one of the least energy efficient countries in the world.

3. The economic development plans implemented since Independence necessarily required increasing amounts of energy to remain operational.

So there is an urgent need to develop a sustainable path of energy development. After all “energy saved is energy produced”.

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

Answer:

The type of soil found in river deltas is Alluvial Soil.

1. Very fertile, and therefore good for the cultivation of crops
2. Consists of various proportions of sand, silt and clay
3. It has a good quantity of potash, lime and phosphoric acid, which is good for the growth of paddy and sugarcane.

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

Answer:

The main techniques that can be used are given below.

1. Contour ploughing
2. Terrace farming
3. Strips of grass are allowed to grow between the crops. This method is known as strip cropping.

4. What are the biotic and abiotic resources? Give some examples.

Answer:

Biotic resource:

1. These are resources that are obtained from the biosphere
2. These resources have life
3. Examples are plants, animals, fish, human beings, livestock etc.

Abiotic resource:

1. These resources are composed of non-living things
2. Examples are water, minerals, metals, wind, solar energy etc.

5. 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.

6.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.

7. What was agenda 21?

Ans. a. It is the declaration signed by world leaders in 1992 at the united Nation’s 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.

d. An important and distinct aim of the agenda is that every local government should draw its own local Agenda 21.

8. 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.

9.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.

10. 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.

11. 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.

12. 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.

13. 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 this differences are many, e.g., climate, soil, relief, irrigation facilities

14. Explain three stages of 'resource planning.

Answer:

Three stages of resource planning:

A. 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.

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

Matching the resource development plans with overall national development

15. Do you think that resources are free gifts of nature as is assumed by many? Justify your answer with any three suitable arguments.

Answer: They are not free gifts of nature as :

- (i) Resources are a function of human activities,
- (ii) Human beings themselves are essential components of resources.
- (iii) They transform material available in our environment into resources and use them.

For example river is a natural resource but river become a resource when its water is used for irrigation or power production.

Five Marks Questions

1. "India has land under a variety of relief features." Justify.

Or

What are the main advantages of India's land under a variety of relief features?

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

(i) About 43 per cent of the land area is plain, which provides facilities for agriculture and industry.

(ii) Mountains account for 30 per cent of the total surface area. They ensure perennial flow of some rivers, provide facilities for tourism and ecological aspects.

(iii) About 27 per cent of the land area is plateau. It possesses reserves of minerals, fossil fuels and forests.

2. Explain the land use pattern in India and why has the land under forest not increased much since 1960-61?

Answer:

The use of land is determined both by physical factors such as topography, climate, soil types as well as human factors such as population density, technological capability and culture and traditions etc. The pattern of the net sown area varies greatly from one state to another. It is over 80 per cent of the total area in Punjab and Haryana and less than 10 per cent in Arunachal Pradesh, Mizoram, Manipur and Andaman Nicobar Islands. Forest area in the country is far lower than the desired 33 per cent of geographical area, as it was outlined in the National Forest Policy (1952). It was considered essential for the maintenance of the ecological balance. A part of the land is termed as wasteland and land put to other non-agricultural uses. Wasteland includes rocky, arid and desert areas and land put to other non-agricultural uses includes settlements, roads, railways, industry etc. Continuous use of land over a long period of time without taking appropriate measures to conserve and manage has resulted in land degradation.

3. Explain the classification of resources on the basis of ownership.

Or

Explain what is meant by national resources and individual resources.

Answer: (a) Individual Resources: Resources which are owned by private individuals are known as individual resources. Plots, fields, houses, cars, books, etc., are some examples of individual resources.

(b) Community Owned Resources: The resources which are accessible to all the members of the community are known as community resources. Village ponds, public parks, playgrounds, etc., are some examples of community resources.

(c) National Resources: All the resources which are under the control of state or union government are known as national resources. All the resources within political boundaries are national resources because the government has the power to acquire even the private properties.

(d) International Resources: These resources are owned and regulated by international institutions. 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. India has got the right to mine manganese nodules from the bed of the Indian Ocean from that area which lies beyond the Exclusive Economic Zone.

4. Explain the classification of resources on the basis of the state of development.

Or

Distinguish between stock resources and reserve resources.

Answer: (i) Potential Resources : Resources which are found in a region, but have not been utilised due to lack of capital or other reasons. 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.

(ii) Developed Resources : These are resources which have been surveyed and their quality and quantity have been determined for utilisation. The development of resources depends on technology and the level of their feasibility. For example, India has a cumulative total of about 2,47,847 million tonnes of coal resources.

(iii) Stock : These are the materials in the environment which have the potential to satisfy the human needs but cannot be used as the human beings do not have the appropriate technology to convert them into usable form. For example, water (H₂O) is a compound of two inflammable gases, i.e., hydrogen and oxygen, but human beings do not have the required technology to use them as a source of energy.

(iv) Reserves : These are the subset of the stock, which can be put into use with the existing technology, but their uses have been postponed keeping in mind the needs of the future generations. For example, India has sufficient amount of forests to fulfil the needs of the present generation, but they are being protected for the future generations

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

Or

“Land is a natural resource of utmost importance.” Elaborate the statement with the help of suitable examples highlighting the value of land resource.

Answer: Land is an important natural resource, because :

- (i) All economic activities are performed on land.
- (ii) It supports natural vegetation and wildlife.
- (iii) Most of the minerals are formed in land.
- (iv) It is used for transport and communication system

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

Or

Mention any four characteristics of alluvial soils.

Or

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

Answer: Characteristics of the Alluvial soil are :

(i) Alluvial soils are transported soils. Most of the soils are derived from the sediments deposited by rivers as in the Indo-Gangetic plain. Thus, the parent material of these soils is of transported origin.

(ii) These soils consist of varying proportion of sand, silt and clay. In the upper course of the river, the soil is coarse. In the middle course, it is medium, and fine grained in the lower course.

(iii) Apart from the size of their grains or particles, soils are described according to their age as well. They are old alluvium and new alluvium. Locally, the old alluvium is called 'Bhangar' and the new alluvium is called 'Khadar'.

(iv) The old alluvium often contains 'kankar, nodules, with calcium carbonates in the sub-soil. The new alluvium is more fertile than the old alluvium.

7. Which soil is called 'regur soil? Mention any four characteristics of this type of soil.

Answer:

(i) These have been formed due to withering of lava.

(ii) The black soils are made of extremely fine materials, i.e., clayey materials.

(iii) These soils are rich in soil nutrients such as calcium carbonate, magnesium carbonate, potash and lime.

(iv) These soils are generally poor in phosphoric content.

(v) The soil is well known for its capacity to hold moisture.

8. What is soil erosion? Explain the major types of soil erosions prevailing in India.

Answer: "Soil erosion is the removal of soil by the forces of nature like wind and water, more rapidly than the various soil forming processes can replace it." Generally, there is a balance between the soil forming process and the erosional process. The balance can be disturbed by natural or human factors.

Types of Soil Erosion :

(a) **Water Erosion :** Water is a powerful agent of soil erosion. Following are the major types of erosion caused by water.

(i) **Sheet Erosion :** When the top layer of the soil is removed over a large area by the running water, it is called as sheet erosion.

(ii) **Gully Erosion :** This is the third stage of sheet erosion. With further erosion of the soil, the rills may deepen and become enlarged, and are ultimately turned into gullies. The main cause of gully erosion is the removal of vegetation, particularly of trees with their widespread binding roots. Gullies cut up agricultural land and the entire area may be turned into a bad land topography. Gully erosion is also responsible for the formation of ravines.

(b) **Wind erosion :** Wind is a powerful agent of erosion in arid and semi-arid lands with little rainfall. Wind can lift the valuable top soil from one area and deposits in another area. The wind erosion is very dangerous type of erosion because due to wind most of the deserts of the world are expanding.

9. Discuss the problems which have been caused due to over-utilisation of resources. Suggest any two ways to save the resources.

Or

"Indiscriminate use of resources has led to numerous problems". Justify the statement in three points.

Answer: (I) Depletion of resources : Over-utilisation has led to the depletion of the resources for meeting the greed of a few individuals. For example, over-utilisation of petroleum products has led to a situation where most of the countries of the world are facing energy crisis.

(ii) Concentration of resources: This has divided the society into ‘haves’ and ‘have nots’ or the rich and the poor.

(iii) Global ecological crisis : Over utilisation of resources has led to the global ecological crisis such as global warming, depletion of ozone layer, pollution and land degradation.

Suggestions :

(i) Minimising wastage.

(ii) Use of renewable resources.

10. “The earth has enough resources to meet the need of all but not enough to satisfy the greed of even one person.” How is this statement relevant to the discussion of development?

Discuss.

Answer: (i) Resources are vital for any developmental activity.

(ii) The irrational consumption and over utilization of resources may lead to socio economic and environmental problems.

(iii) Indiscriminate exploitation of resources led to global ecological crises such as global warming, environmental pollution, etc

(iv) The greedy and selfish individuals and exploitative nature of modern technology is the root cause for resource depletion at the global level.

(v) If the present trend of resource depletion by a few individuals and countries continues, the future of our planet is in danger.

(vi) There is need for sustainable development.

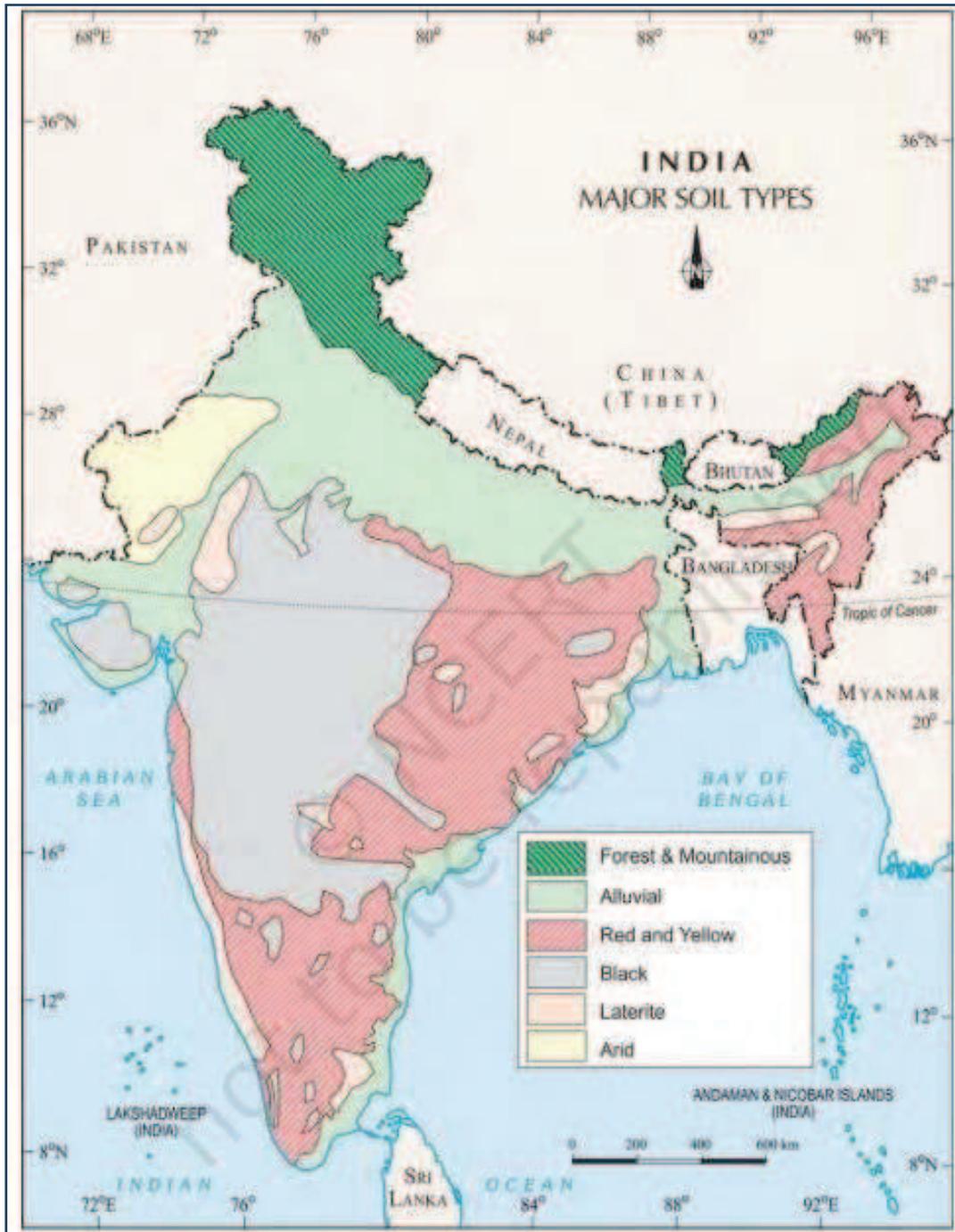
It means development should take place without damaging the environment and development in the present should not compromise with the need of future generations’.

11. How have technical and economic development led to more consumption of resources?

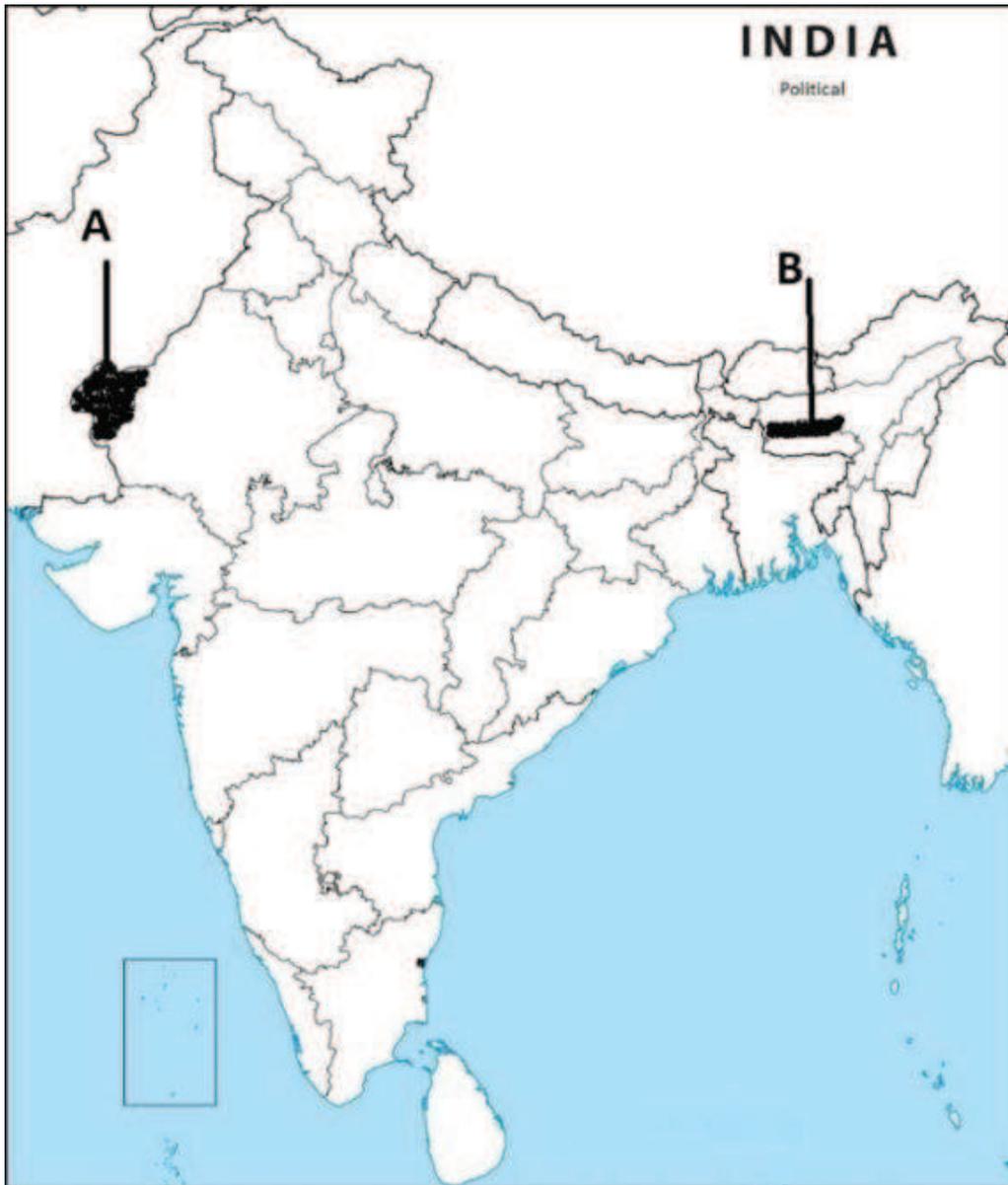
Technical and economic development led to more consumption of resources:

- Advancements made in the field of surveying helped in finding the hidden natural resources.
- Advancements made in different fields helped in identifying the different uses of various natural resources.
- Due to advancements made in the field of engineering, science and technology aided in extraction of natural resources in an environmentally feasible manner.
- Due to advancements made in technology, the extraction of natural resources became more feasible.

Due to rising economic development, demand for natural resources started rising from other countries as well in addition to the domestic demand, hence the exploitation of natural resources started increasing to increase trade.



On the given outline map of India, Identify the location with the help of specified information .



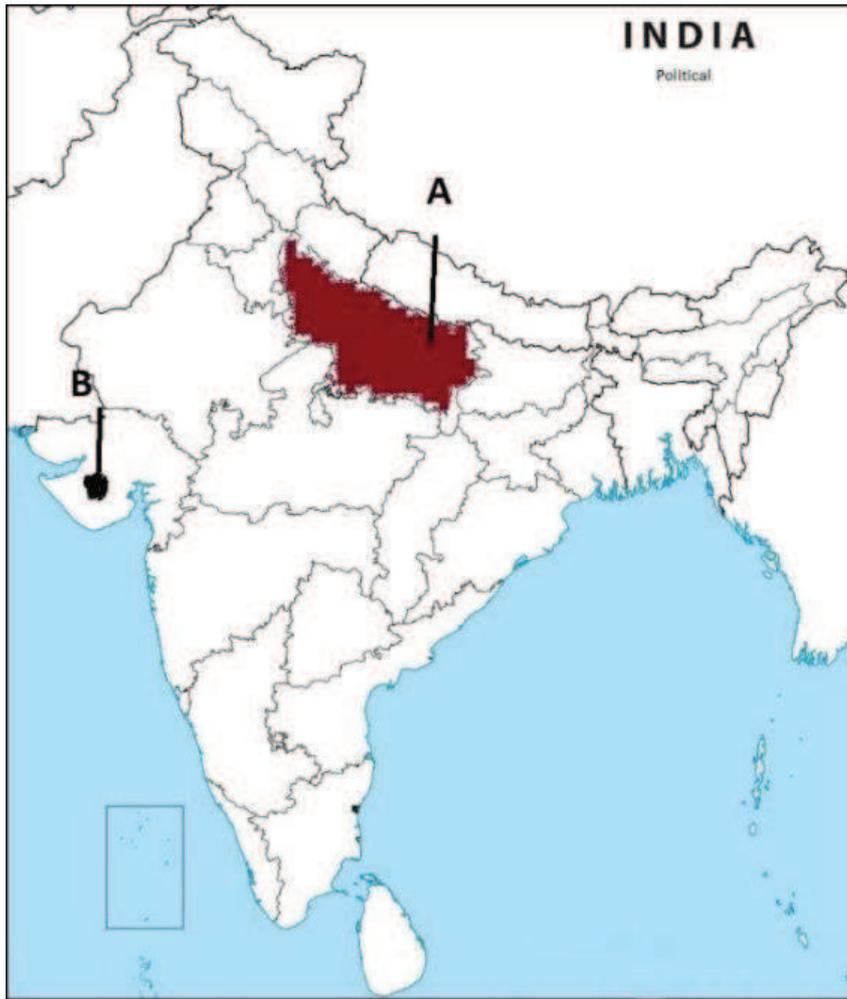
Q30 Identify the type of soil marked as A and choose the correct option.

- a. Black soil
- b. Arid soil (Ans)
- c. Alluvial soil
- d. Red and yellow soil

Q31 Identify the type of soil marked as B and choose the correct option.

- a. Black soil
- b. Arid soil
- c. Alluvial soil
- d. Laterite soil (Ans)

On the given outline map of India, Identify the location with the help of specified information.



Q32 Identify the type of soil marked as A and choose the correct option.

- a. Black soil
- b. Arid soil
- c. Alluvial soil**
- d. Laterite soil

Q33 Identify the type of soil marked as B and choose the correct option.

- a. Black soil**
- b. Arid soil
- c. Alluvial soil
- d. Red and yellow soil