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Page 12 Q1:

Multiple choice questions:
(i) Which one of the following types of resources 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. Abiotic
c. Human-made.
d. Non-recyclable
(iii)Which one of the following is the main cause of land degradation in Punjab?
a. Intense cultivation
b. Deforestation
c. Over irrigation
d. Overgrazing

(iv) In which one of the following states is the terrace cultivation practiced?
a. Punjab
b. Haryana
c. Plains of Uttar Pradesh
d. Uttaranchal
(v) In which one of the following states is the black soil found?
a. J & K
b. Gujarat
c. Rajasthan
d. Jharkhand

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

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Q.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 biotic and abiotic resources? Give some examples.

(i) The states of Maharashtra, Madhya Pradesh and Chhattisgarh have black soil. The crop which is mainly grown in this soil is cotton. This soil is also called 'Regur' or black cotton soil.
(ii) The river deltas of the eastern coast have alluvial soil.
Alluvial soil consists of various proportions of sand, silt and clay.
The main features of alluvial soil are:
(a) These soils are very fertile and so ideal for cultivation.
(b) They contain adequate quantities of potash, phosphoric acid and lime good for the growth of sugarcane, paddy, and other crops.
(c) In drier areas these soils are more alkaline.
(iii) In hilly areas, soil erosion can be controlled by contour ploughing which is ploughing along contour-lines, using 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 and have life are called Biotic Resources. Examples of biotic resources are animals, plants, human beings, fish, livestock etc.
Abiotic Resources: The resources which are composed of non-living things are called Abiotic Resources.
Examples of abiotic resources are, water, minerals, metals, wind, solar energy etc.

Q3. 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 have technical and economic development led to more consumption of resources?

1) Land resources in India are primarily divided into agricultural land, forest land, pasture and grazing land, and waste land. Waste land includes rocky, arid and desert areas, and land used for non-agricultural purposes like housing, roads, industry etc.

According to recent data available the percentage of net sown area (NSA) in India is about 54% of the total reporting area (if, the other than current fallow lands is included). . 22.5% is covered by forests, and 3.45% is used for grazing. The rest is waste land, with traces of miscellaneous cultivation.
Improper use of forest land has led to land degradation and made conservation of forests difficult. Human activities like deforestation,overgrazing, mining , quarrying etc have contributed to the slow growth rate of forests. Thus, land under forest has increased by only about 4% since 1960-61.
(ii) The following factors have been responsible for technical and economic development leading to over consumption of resources .
In colonial times, imperial powers used their technological and economic superiority to establish control over other countries and thereby gain access to the latter's resources. One country's resources were accessible to the citizens of its colonial ruler too, leading to increased consumption.
Technical progress also results in efficient machinery, increased production and greater consumption of resources.

Technological development and economic progress has led to populations increasing due to low mortality at all ages. With new developments in medicine and health care, fewer people die due to accidents, diseases, in childbirth etc. This too has contributed to higher consumption of resources.

LAQ

Q. 1. What is resource planning ? Mention the steps which are involved in resource planning. [CBSE 2009 (F); Sept. 2010, 14]
Or
Explain the three steps involved in the resource planning in India. [CBSE Sept. 20W]
Or
What are the three stages of resource planning in India?
Ans. "Resource planning is a technique or skill of proper or judicious use of resources. "
Resource planning is a complex process which involves :
(i) Identification and inventory of resources across the regions of the country. This involves surveying, mapping, qualitative and quantitative estimation and measurement of the resources.
(ii) Evolving a planning structure endowed with appropriate technology, skill and institutional set up for implementing resource development plans.
(iii) Matching the resource development plans with overall national development plans.

Q. 2. Explain the classification of resources on the basis of exhaustibility. [CBSE 2009 (D), Sept. 2010, 2011]
Ans. (i) Renewable resources: "Renewable resources are the natural resources which can be used again and again or can be reproduced by physical, mechanical and chemical processes." Solar energy, air, water and soil are some of the renewable resources of energy.
(ii) Non-renewable resources: "Non renewable resources are the natural resources that cannot be replaced at all or within a reasonable time." Fossil fuels such as oil, gas and coal are examples of non renewable resources. These resources are accumulated over millions of years. They are considered to be non-renewable resources because once they are used up, they are gone forever.

Q. 3. Explain the classification of resources on the basis of origin.
Or
Give two examples of abiotic resources. [CBSE 2010(F)]
Or

What are biotic and abiotic resources ? Give two examples for each. [CBSE Sept. 2010]

Q- 4. Explain the classification of resources on the basis of ownership. [CBSE 2009 (O), 2014]
Or
Explain what is meant by national resources and individual resources. [CBSE Sept. 2010, 2014]
Ans. (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.

Q.5.Explain the classification of resources on the basis of the state of development. [CBSE 2008]
Or
Distinguish between stock resources and reserve resources. [CBSE Sept. 2010,12]
Ans. (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 (H20) 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.

Q. 6. Distinguish between Renewable and Non renewable resources. [CBSE Sept. 2010]

Renewable Resources	Non-renewable Resources
(i) These are those resources which can be renewed in a short time.	(i) These are those resources which cannot be renewed in a short time.
(ii) These do not cause any pollution to the environment.	(ii) These cause pollution to the environment.
(iii) These are the free gifts of nature.	(iii) These are not the free gifts of nature.
(iv) Air, water and solar energy are some of the renewable resources.	(iv) Mineral, oil and coal are some of the non-renewable resources.

Q.7. HOW is land a natural resource of utmost importance ? Explain with four facts. [CBSE 2008 (O), 2012, 2013]
Or
"Land is a natural resource of utmost importance." Elaborate the statement with the help of suitable examples highlighting the value of land resource. [CBSE 2013]
Ans. 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.

Q-8. Which is the most widely spread and important soil of India ? State any six characteristics of this type of soil. [CBSE 2008 (F), Sept. 2010]
Or
Mention any four characteristics of alluvial soils.
Or
How are alluvial soils formed ? How is Bangar different from Khadar ? [CBSE 2012]
Ans. Alluvial soil
Characteristics of the Alluvial soil :
(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.

Q.9. Distinguish between Khadar and Bhangar.[CBSE 2010(0), Sept. 2010, 2011]

Ans.

Khadar (New)	Bhangar (Old)
1. The Khadar soils are found in the low areas of the valley, bottom of a valley which are flooded every year.	1. The Bhangar soils are found in the higher reaches, about 30m above the flood level.
2. These soils are finer in texture.	2. These are coarser in texture.
3. The Khadar soils are more fertile as these are found in the low areas of the bottom of a valley which are flooded almost every year.	3. These soils are less fertile as these are found on the higher reaches, about 30m above the flood level.

Q.10. Which soil is called 'regur soil' ? Mention any four characteristics of this type of soil. [CBSE 2009 (F), Sept. 2010, 2012, 2013]

Ans. Black soil

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

(if) 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.

Q.11. How is red soil formed ? Mention its three characteristics. [CBSE Sept. 2010]
Or
How does red soil develop ? What makes it look red and yellow ? [CBSE 2014]

Ans. Formation : Most of the red soils have come into existence due to weathering of ancient crystalline igneous rocks. Characteristics/Features :

(i) Soils are loamy in deep depressions and in uplands. They consist of loose gravels and highly coarse materials.

(ii)The colour of these soils is generally red, often grading into brown, chocolate or yellow. The red colour is due to wide diffusion rather than high percentage of iron content. It looks yellow when it

occurs in a hydrated form.
(iii)Soils are deficient in phosphoric acid, organic matter and nitrogenous materials but are fairly rich in potash. But crops are cultivated with the use of fertilizers.

Q.12. Which geographical factors are responsible for the evolution of black soil ? Why is it considered the most suitable for growing cotton ? [CBSE 2012, 2013]
Ans. (1) Climatic conditions like temperature, rainfall etc. along with present rock material are important factors for making of black soil. The parent rock is volcanic rock.
(2) It is ideal for growing cotton because:
(i)It has capacity to hold moisture.
(ii)They are rich in calcium carbonate, magnesium, potash and lime.
(iii)This soil is also known as black cotton soil,
(iv) They develop deep cracks during hot weather, which help in the proper aeration of the soil.

Q.13. How is mountain soil (forest soil) formed ? Mention any four characteristics of forest soil. .
Ans. Formation: The soils are formed due to mechanical weathering caused by snow, rain, temperature variation, etc. Characteristics/Features :
(i) These soils are heterogeneous in nature, and their character changes with mountainous environment and altitude.
(ii) The soils are very rich in humus, but are deficient in potash, phosphorus and lime.
(iii) The soils are especially suitable for plantation of tea, coffee, spices and tropical fruits.
(iv) The soil is loamy and silty in valley sides and coarse grained in the upper slopes. It is acidic with low humus content in the snow covered areas. It is fertile in the lower parts of the valleys.

Q.14. Mention any four features of the arid soils.
Or
Name the soil type which is widely found in Western Rajasthan. Explain two important characteristics of this soil type which make it unsuitable for cultivation. [CBSE 2012]
Ans. Arid soil is widely found in Western Rajasthan.
(i) The soil ranges red to brown in colour.
(ii) The soils contain considerable amount of soluble salts.
(iii) The soils contain a low percentage of organic matter due to dry climate and absence of vegetation.
(iv) The soil is alkaline in nature as there is no rainfall to wash soluble salts.
(v) The lower horizon of the soil is occupied by 'kankar' because of the increasing calcium content downwards. The 'kankar' layer formations in the bottom horizons restrict the infiltration of water.
(vi) The soils are infertile but with irrigation and fertilizers, the drought resistant and salt tolerant dry crops such as barley, cotton, wheat, millets, maize, pulses, etc., are grown. (Any Four)

Q.15. Explain the formation and important features of the laterite soil. [CBSE 2013, 14]
Ans. Formation : It develops in areas with high temperature and heavy rainfall. The laterite soil is a result of intense leaching owing to heavy tropical rains.
Features :
(i) The soils are acidic in nature, coarser and crumbly in texture.
(ii) Due to lack of nitrogen, potassium and organic elements, the laterite soils lack fertility, and are not suitable for cultivation. But when the soils are manured and irrigated, some crops can be cultivated.
(iii) As the soils are indefinitely durable, so they provide valuable building materials.

Q.16. What is soil erosion ? Explain the major types of soil erosions prevailing in India. [CBSE Sept. 2010]

Ans. "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) Rill Erosion : This is the second stage of sheet erosion. If erosion continues unchecked for a sufficient time, (rills) or small finger-shaped grooves which are a few centimetres in depth, may develop on the landscape. Over a period of time, the fine rills increase in number and also become deeper and wider, and resemble the twigs, branches and trunk of a tree. This is called as rill erosion.

(iii) 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.

Q.17. With reference to the types of soil, answer the following questions :

(i) Name any four regions or states where alluvial soil is formed. [CBSE Sept. 2010]

(ii) Name any four regions or states where red and yellow soils are formed.

(iii) Name any four regions or states where laterite soil is formed.

Ans. (i) Rajasthan, Gujarat, deltas of Mahanadi and Godavari, and deltas of Krishna and Kaveri rivers.

(ii) Odisha, Chhattisgarh, Southern parts of the middle Ganga plain and the Western Ghats.

(iii) Karnataka, Kerala, Tamil Nadu and Madhya Pradesh.

Q-18. State two main differences between the Alluvial soil and the Red soil.

Ans.

Alluvial Soil	Red Soil
1. Alluvial soil is very fertile as it is rich in mineral nutrients like potash and lime.	1. It is less fertile as it is deficient in phosphorus, nitrogen, lime and humus.
2. Most of the alluvial soil is derived from the sediments deposited by the rivers.	2. Most of the red soil has been formed due to weathering of ancient crystalline and metamorphic rocks.

Q.19. Give reasons :
(i) Alluvial soil can hold moisture, and is very fertile.
(ii) Black soil needs to be tilled after the first rain.
(iii) Red soil is ideal for dry farming.
(iv) The percentage of organic matter in desert soil is very low.
(v) Red soil is less fertile.
Ans. (i) Because the alluvial soil is made up of fine particles. The soil is very fertile because it is rich in mineral nutrients like potash and lime.
(ii) The soil is sticky, and difficult to work unless tilled immediately after the first rain.
(iii) Because it does not require much moisture.
(iv) Because of the dry climate and absence of vegetation.
(v) Because it is deficient in phosphorus, nitrogen, lime and humus.

Q.20. Name two important crops associated with the following types of soil :
(a) Alluvial soil (b) Black soil
(c) Desert soil (d) Laterite soil
Ans. (a) Alluvial: Wheat and rice.
(b) Black: Cotton and sugarcane.
.(c) Desert: Barley and ragi.
(d) Laterite: Coffee and tea.

Q.21. Explain the land-use pattern of India.
Ans. (i) 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. This is not a healthy trend, and must be checked. The steps taken by government has resulted in increase of net sown area to 47% in 2005-06.
(ii) 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 the Andaman and Nicobar Islands.
(iii) The area under forests has increased from 18.11% in 1960-61 to 22.57% in 2000-03 and to 23% in

2005-06 yet it is far below than the scientific norms.
(iv) The land under permanent pasture is very low, i.e., only 3.45% (Fallen to 3%). This shows the tremendous pressure of livestock population on agricultural land. Cattle are reared mainly on the farm wastes, grain chaff and a few fodder crops.
(v) Area under fallow land has also decreased which shows, that subsistence agriculture is being replaced by commercial agriculture.
(vi) A part of the land is termed as waste land, and land put to other non-agricultural uses. Waste land includes rocky, arid and desert areas, and land put to other non- agricultural uses includes settlements, roads, railways, industries, etc.

Q. 22. Explain any four proper fanning techniques which can be used for soil conservation.
Or
Suggest any three measures of soil conservation. [CBSE Sept. 2010, 2011]
Or
What is soil conservation ? Explain any three methods of soil conservation suitable to Indian conditions. [CBSE 2013, 14]
Ans. Soil conservation includes all those measures which help in protecting the soil from erosion or degradation.
(i) Crop rotation : If the same crop is sown in the same field, year after year, this consumes certain nutrients from the soil making it infertile. Crop rotation can check this type of erosion.
(ii) Settled agriculture : Checking and reducing shifting agriculture by persuading the tribal people to switch over to settled agriculture.
(iii) Terracing and contour bunding :
Terracing and contour bunding across the hill slopes is a very effective, and one of the oldest methods of soil conservation. Hill slope is cut into a number of terraces having horizontal top and steep slopes on the back and front. Contour bunding involves the construction of bank along the contour.
(iv) Strip cropping : Large fields can be 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.
(v) Shelter Belt : Planting lines of 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 stabilisation of sand dunes and in establishing the desert in western India.

SAQ

Q. 1. What is a Resource ? Give two examples.
Ans. 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. Examples, coal, water, air, minerals, etc.

Q. 2. What is the importance of natural resource ? Why is it necessary to conserve them ? [CBSE 2013]
Ans. Resources are important for the development of any country. For example, fossil fuels are essential to generate energy, mineral resources are important for industrial development, etc.
Necessary to conserve resources because:
(i) Their irrational consumption and over utilisation have led to socio-economic and environmental

problems.
(ii) It takes million of years for the formation of natural resources.
(iii) Natural resources are available in fixed quantity and they are non – renewable.

Q. 3. What are the ways to classify resources ?
Ans. (i) On the basis of origin – biotic and abiotic.
(ii) On the basis of exhaustibility – renewable and non-renewable.
(iii) On the basis of ownership-individual, community, national and international.
(iv) On the basis of the state of development- potential, developed and stock.

Q. 4. What is the role of humans in resource development ? [CBSE 2014]
Or
Explain the role of humans in resource development. [CBSE Sept. 2010, 2011],
Ans. (i) Resources are function of human activities.
(ii) Human beings interact with-nature through technology, and create institutions to accelerate their economic development.
(iii) Human beings transfer materials available in our environment into resource, and use them.
(iv) For example, river is a natural endowment and it becomes resource when its water is used for irrigation or power production.

Q. 5. What are renewable resources ? Give two examples.
Ans. The resources which can be renewed or reproduced by physical, chemical or mechanical processes are known as renewable or replenishable resources. For example, solar and wind energy, water, forests and wildlife, etc. The renewable resource may further be divided into continuous or flow.

Q. 6. What are non renewable resources ? Give two examples.
Ans. These occur over a very long geological time. 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. For example, coal, bauxite.

Q. 7. What are individual resources ? Give two examples.
Ans. Resources which are owned by private individuals are known as individual resources. Plots, fields, house, car, book, etc. are some examples of individual resources.

Q. 8. What are community owned resources ? Give two examples.
Ans. 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.

Q. 9. What are national resources ? Give two examples.
Ans. 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 private property. For example, Indian railway, Bhakra dam.

Q.10. What are potential resources ? Give two examples.
Ans. 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.

Q.11. What are developed resources ? Give two examples.
Ans. 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 level of their feasibility. For example, India has a cumulative total of 2,47,847 million tones of coal resources.

Q. 12. What is stock ? Give two examples.
Ans. These are material in the environment which have the potential to satisfy the human needs but could not be used as the human beings do not have the appropriate technology to convert them into usable form. For example, water (H20) 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.

Q. 13. What are reserves ? Explain with examples.
Ans. Reserves are the subset of the stock, which can be put into use with the help of existing technical 'know-how' but their use has not been started. These can be used for meeting future requirements. River water can be used for generating hydroelectric power but presently, it is being utilised only to a limited extent. Thus, the water in the dams, forests etc. is a reserve which can be used in the future. '

Q. 14. "Planning of resources is very important for a country like India". Justify by giving three reasons.
Ans. (i) India has enormous diversity in the availability of resources. There are many regions which are rich in certain type of resources but are deficient in some other resources.
(ii) The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in minerals and coal deposits but lacks in infrastructural development.
(iii) The states like Punjab, Haryana and Uttar Pradesh are rich in soil but lacks minerals.

Q. 15. 'The availability of resources is the only condition for the development of any region'. What is your opinion on the statement ? Explain.
Or
Mention any three necessary conditions for the development of resources.
Ans. (i) Resources can contribute to development only when they are accompanied by appropriate technological development and institutional changes.
(ii) There is need for quality of human resources i.e. skilled workers who can convert natural resources into more useable form.
(iii) There is also a need for capital which is required to develop technology.

Q.16. Explain the relationship between nature, technology and institutions.
Ans. Nature contains resources. These resources are converted into usable form with the help of technology. Human beings interact with nature through technology, and create institutions to accelerate their economic development.

Q.17. 'India has enormous diversity in the availability of resources.' Explain.
Or
"India is rich in certain types of resources but deficient in some other resources." Support your answer with examples. [CBSE Sept. 2012, 2014]
Ans. (i) The states of Jharkhand, Chhattisgarh and Madhya Pradesh are rich in mineral resources but lack industrialisation.
(ii) Arunachal Pradesh has an 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 area of Ladakh is relatively isolated from the rest of the country due to lack of means of transportation and communication.
(iii) Most of North-Eastern states are rich in natural vegetation but lacks in fertile soil.

Q.18. Study the following data carefully and answer the questions that follow :
LAND FEATURES OF INDIA
Land Features Area Covered (in percentage)
(i) Plains 43%
(ii) Mountains 30%
(iii) Plateaus 27%
Total 100%
(i) Name the land feature which occupies the highest surface area of India.
(ii) Give two advantages of the above land feature.
Ans. (i) The plains (43%) occupy the highest surface area of India.
(ii) (a) The plains provide opportunity for crop farming.
(b) The plains have good climatic conditions for human habitation.

Q.19. HOW over-irrigation and mining lead to land degradation ?
Or
How is over-irrigation responsible for land degradation ? Which states of India face this problem? [CBSE 2013]
Ans. Over-irrigation and mining lead to land degradation as :
(i) Over-irrigation is responsible for land degradation due to waterlogging which leads to increase in salinity and alkalinity in the soil. Water logging is a major issue in Punjab, Haryana, UR
(ii) The mineral processing like grinding of limestone for cement industry calcite and soapstone for ceramic industry generate huge quantities of dust in the atmosphere. It retards the process of infiltration of water into the soil after it settles down on the land.

Q.20. Explain the major factors which are responsible for the formation of soil. [CBSE 2009 (O), Sept. 2011]
Or
Explain any three factors responsible for the formation of soil. [CBSE 2013]
Ans. (i) Relief, parent rock or bedrock, climate, vegetation and other forms of life and time are important factors in the formation of soil.
(ii) Various forces of nature such as change in temperature, actions of running water, wind and glaciers, activities of decomposers, etc. contribute to the formation of soil.
(iii) Chemical and organic changes which take place in the soil are equally important.
(iv) Soil also consists of organic (humus) and inorganic materials.

Q.21. Mention the criteria on the basis of which Indian soils can be classified.
Ans. (i) Factors responsible for soil formation.
(ii)Colour
(iii)Thickness
(iv)Texture
(v) Age
(vi) Chemical and Physical properties.

Q.22. Explain the distribution of alluvial soils.
Ans. (i) This is the most widely spread and important soil of India.

(ii)These soils also extend in Rajasthan and Gujarat through a narrow corridor.
(iii)Alluvial soil is also found in the eastern coastal plains particularly in the deltas of the Mahanadi, the Godavari, the Krishna and Kaveri rivers.

Q.23. With reference to alluvial soil answer the following questions-
(i) How is it classified on the basis of its age ?
(if) Alluvial soil as a whole is very fertile. Give reasons.
Ans. (i) On the basis of age alluvial soil is classified as Bangar and Khadar.
(ii)Mostly these soils contain adequate proportion of potash, phosphoric acid and lime.

Q.24. Explain the distribution of black soil.
Ans. (i) Black soil is typical of the Deccan trap region spread over northwest Deccan plateau.
(ii) They cover the plateau of Maharashtra, Saurashtra, Malwa, Madhya Pradesh and Chhattisgarh.
(iii) They are also found in the Godavari and Krishna valleys.

Q.25. Which soil is considered ideal for growing cotton ? How is the soil formed ?
Ans. Black soil. These soils have been formed due to the weathering of the lava spread over large areas during volcanic activity in the Deccan Plateau and different climatic conditions.

Q.26. (I) Which soils develop on crystalline igneous rocks ?
(ii) Why do the soils develop a reddish colour?
(iii) Name any two states where this soil is found.
Ans. (i) Red soil
(ii)The soils develop a reddish colour due to diffusion of iron crystalline and metamorphic rocks.
(iii)Odisha and Chhattisgarh

Q.27. Mention the factors on which the land- use pattern of India depends upon. [CBSE Sept. 2012]
Ans. The use of land is determined by physical as
well as human factors.
(i) Physical factors: Topography, climate and soil types.
(ii) Human factors: Population density, technological capability, culture and traditions.

Q.28. (i) 'Humus content of the laterite soil is very low.' Explain by giving two reasons.
(ii) Mention any two crops associated with the soil.
Ans. (i) (a) The soil is formed due to intense leaching. So the nutrients of the soil are washed away by heavy rains.
(b) The soil is formed in the regions of high temperature. So most of the micro¬organisms, particularly the decom¬posers, like bacteria, get destroyed.
(ii) Tea and Coffee.

Q.29. (i) 'The arid soil lacks humus and moisture.' Explain.
(ii) Name any two states where this soil is formed.
Ans. (i) The arid soil is found in dry climatic conditions. Due to dry climate and high temperature, evaporation is faster and the soil lacks humus and moisture.
(ii) Rajasthan and Gujarat

Q.30. What is soil erosion ? Name any four states which have been affected by gully erosion.
Ans. The removal of soil by the forces of nature, particularly wind and water is called .soil erosion.

Uttar Pradesh,
Madhya Pradesh, Bihar and Rajasthan.

Q.31. HOW does the soil of the Ganga-Yamuna plain differ from that of central Maharashtra ?
Ans. The Ganga-Yamuna plain has alluvial soils, whereas the central Maharashtra has black soils. The alluvial soils are formed by the depositional work of rivers in the river ualleys, flood plains and deltas. The black soils develop from volcanic rocks from where the lava flows.

Q.32. What are the causes of soil erosion in : (I) Shiwaliks or the Outer Himalayas.
(ii) North-Eastern parts of India.
(iii) Arid regions of India.
Ans. (I) Shiwaliks or the Outer Himalayas :
Destruction of vegetation is the main cause of soil erosion in hilly areas because when vegetation is removed, the soil surface becomes loose, and is more easily removed by the running water.
(ii) North-Eastern parts of India : Heavy rainfall which leads to frequent floods is responsible for soil erosion.
(iii) Arid regions of India : In deserts and dry regions, where there is little or no vegetation, wind is the most powerful agent of soil erosion, blowing away fine particles of sand depositing them in other areas making both the areas unproductive.

Q.33. What are the differences between the alluvial soil found in the upper course of rivers and that found in die lower courses ?

Q.33. What are the differences between the alluvial soil found in the upper course of rivers and that found in the lower courses ?

Ans.

Alluvial soil in the upper course	Alluvial soil in the lower course
(*i*) The soil particles are bigger in size.	(*i*) The soil particles are smaller in size.
(*ii*) The soils are coarse.	(*ii*) The soils are less coarse.
(*iii*) The soils in the upper course are less fertile.	(*iii*) The soils in the lower course are fertile.

Q.34. Which is the main cause of land degradation in Gujarat, Rajasthan and Madhya Pradesh ? How can it be checked ? Explain.[CBSE 2012]
Ans. Large scale over-grazing has caused severe land degradation.

Measures to check :
(i)Aforestation and proper management of grazing.
(ii)Planting of shelter belts.
(iii)Stabilisation of sand dunes by growing thorny bushes.
(iv) Control on overgrazing.

VSAQ

Q.1.What is a Resource ? Give two examples.
Ans. 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. Coal, water, air, minerals etc. are some examples of resource.

Q.2.What is the role of humans in resource development ?
Ans. (i) Human beings interact with nature through technology and create institutions to accelerate their economic development.
(ii) Human beings transfer material available in our environment into resource and use them.

Q.3.How can the resources be classified on the basis of origin ? [CBSE 2010]
Ans. Biotic and Abiotic.

Q.4.What are abiotic resources ? [CBSE 2014]
Ans. All those things which are composed of non – living things are called abiotic resources.

Q.5.A gas reserve has been discovered in an Ocean. The reserve is 19 km from the coast of the nation. Will it be considered an international resource or a national resource.
Ans. All the resources upto 12 nautical miles (19.2 km) from the coast are termed as national resources. So this will be a national resource.

Q.6.“There is enough for everybody’s need and not for anybody’s greed”. Who said these words ?
Ans. Mahatma Gandhi

Q.7.It is important to use the available land for various purposes with careful planning”. Give reason.
Ans. Because land is an asset of a finite magnitude.

Q.8. HOW can the resources be divided on the basis of exhaustibility ?
Ans. Renewable and Non-renewable.

Q.9. Classify the following resources as biotic and abiotic.
(i) Metals
(ii) Fauna
Ans. (i) Metals – abiotic (ii) Fauna – biotic

Q.10. Give a single word for the following :
(i) Materials which have the potential to satisfy human needs but human beings do not

have the appropriate technology.
(ii) The resources which can be renewed or reproduced by physical, chemical or mechanical processes.
Ans. (i) Stock
(ii) Renewable

Q.11. Name any two states of India which are well endowed with solar energy.
Ans. Gujarat and Rajasthan.

Q.12. Name any two factors on which resource development depends.
Ans. (i) Technology
(ii) Quality of human resources.

Q-13. What is total geographical area of India ?
Ans. 3.28 million sq. km.

Q.14. Mention any two factors which determines the land use pattern of a nation.
Ans. (i) Topography (ii) Population

Q.15. What is wasteland ?
Ans. An unused area of land like rocky, arid and desert areas.

Q.16. What is net sown area ? [CBSE 2014]
Ans. Area sown once a year is known as net sown area.

Q.17. What is gross sown area ?
Ans. This represents the total sown area once/or more than once in a particular year i.e. the area is counted as many as times as there are sowings in a year.

Q.18. Name any two states which have high percentage of net sown area.
Ans. Punjab and Haryana

Q.19. Name any two states Which have very low percentage of net sown area.
Ans. Arunachal Pradesh and Mizoram

Q.20. How much degraded land is present in India ?
Ans. 130 million hectares.

Q.21. Name any two states where over grazing is one of the main reasons for land degradation.
Ans. (i) Madhya Pradesh (ii) Rajasthan

Q.22. What are biotic resources? [CBSE 2014]
Ans. These are obtained from biosphere and have life such as human beings, flora and fauna, fisheries, livestock etc.

Q.23. Name any two states where over irrigation is responsible for land degradation.
Ans. (i) Punjab (ii) Haryana

Q.24. Name any two states where mining is responsible for land degradation.
Ans. Jharkhand and Madhya Pradesh.

Q.25. HOW over-irrigation leads to land degradation ?
Ans. Over-irrigation degrades land due to water logging leading to increase in salinity and alkalinity of the soil.

Q.26. HOW can land degradation be checked in Rajasthan as the state is having arid soil ? Mention any two methods.
Ans. (i) Control on over grazing.
(ii) Stabilisation of sand dunes.

Q.27. Suggest any two ways to check land degradation. [CBSE 2013, 14]
Ans. (i) Afforestation
(ii) Proper management of grazing

Q.28. Mention any two factors which have contributed in the development of various types of soils.
Ans. (i) Varied relief features.
(ii) Varied climatic conditions.

Q.29. 'The entire northern plains are made of alluvial soils. Name the rivers due to which the soils have been deposited.
Ans. The Indus, the Ganga and the Brahmaputra.

Q.30. HOW can the alluvial soil be classified according to their age ?
Ans. (i) Khadar (ii) Bangar

Q.31. Out of Khadar and Bangar soil which is more fertile ? Give one reason.
Ans. Khadar soil is more fertile because it has more fine particles.

Q.32. Name any two minerals present in alluvial soil which makes it ideal for the growth of sugarcane, paddy, wheat and other cereals.
Ans. Potash and lime.

Q.33. Name one important crop cultivated in :
(i) Alluvial soil (ii) Black-soil
Ans. (i) Alluvial – Wheat (ii) Black – Cotton.

Q.34. Which soil is ideal for growing cotton ? [CBSE 2014]
Ans. Black soil.

Q.35. Which soil is well known for their capacity to hold moisture ? Give reason.
Ans. Black soil. Because black soil is made up of extremely fine clayey material.

Q.36. Name a mineral in which the black soil is poor.
Ans. Phosphoric contents.

Q.37. Why black soil is tilled immediately after the first shower ?
Ans. These soils are sticky when wet and difficult to work on.

Q.38. Name the soil which develops on crystalline igneous rocks.
Ans. Red soil.

Q.39. 'Laterite' has been derived from the Greek word 'later'. What does the term later mean ?
Ans. Brick.

Q.40. The running water cuts through clayey soils and makes deep channels. What are they called?
Ans. Gully erosion. .

Q.41. Which state has mostly laterite soil ?
Ans. Karnataka.

Q.42. Which soil types is the result of intense leaching due to heavy rainfall ?
Ans. Laterite soil.

Q.43. Name the soil which develops in areas with high temperature and heavy rainfall.
Ans. Laterite soil.

Q.44. Name any two crops associated with laterite soil.
Ans. Tea and coffee.

Q.45.. Which soils are generally sandy in texture and saline in nature ?
Ans. Arid soils.

Q.46. 'The lower horizon of the arid soils are occupied by kankar'. Give reason.
Ans. This is because of increasing calcium content downwards.

Q.47. Name any two natural factors which are responsible for soil erosion.
Ans. Wind and glacier.

Q.48. By which name is the bad land known in chambal basin ?
Ans. Ravines.

Q.49. What is sheet erosion ?
Ans. When the top layer of the soil is removed over a large area by running water, it is called sheet erosion.

Q.50. What is wind erosion ?
Ans. Wind blows loose soil off flat or sloping land. This is known as wind erosion.

Q.51. What is contour ploughing ?
Ans. Ploughing along the contour lines is known as contour ploughing.

Q.52. HOW contour ploughing helps in the soil conservation ?
Ans. Ploughing along the contour lines decelerates the flow of water down the slopes.

Q.53. What are shelter belts ?
Ans. Rows of trees which are planted in between the crops are known as shelter belts.

Q.54. HOW shelter belts helps in file conservation of soil ?
Ans. The shelter belts break up the force of the wind.

Q.55. Name a method which has contributed significantly in soil conservation in western India.
Ans. Shelter belts.

Q.56. What is net sown area ? What percentage of total area is under net sown area in India ? .
Ans. Area sown once in a year is known as net sown area. In 2008-2009, 46.24% of India's area was under net sown area.

Q.57. What is gross sown area ?
Ans. Area sown more than once in an agricultural year plus net sown area is known as gross sown area.

Q.58. Which soils is the most widely spread in India ?
Ans. Alluvial soil.

Q.59. What is bad land ?
Ans. It is a land which is unsuitable for cultivation. Mainly soil erosion converts a fertile land into a bad land.

Q.60. What is gully erosion ?
Ans. Gully erosion takes place when running water cuts deep ravines in the absence of vegetation. This type of erosion makes soil unfit for cultivation.

Q.61. What is strip cropping ?
Ans. Under strip cropping large fields are divided into strips and different types of crops are grown on alternative strips along contours or across the prevailing direction of winds. This breaks up the force of the wind.

Q.62. Mention any two man-made and two natural factors responsible for land degradation. [CBSE 2014]
Ans. (i) Man-made : Deforestation, over- grazing, mining, quarrying.
(ii) Natural : Water logging, wind, running water

Q.63. Name any four minerals in which the black soil is rich.
Ans. (i) Calcium carbonate (ii) Magnesium
(iii) Potash (iv) Lime

Q.64. What is leaching ? Name the soils which develop due to leaching.
Ans. Leaching is a process by which the nutrients in the soil are washed away by heavy rains. Laterite soils develop due to leaching.

Q.65. Mention any four proper farming technique which can be helpful in conservation of soil.
Ans. (a) Strip cropping
(b) Shelter belt

(c) Contour ploughing
(d) Terracing

Q.66. State two disadvantages of the red soil.
Ans. (i) The soil lacks in nitrogen, organic and phosphoric acid contents and is less fertile.
(ii) Red soils are porous in nature but not retentive to moisture.

Q.67. 'It is important to use the available land ' for various purposes with careful planning'. Give reason.
Ans. Because it is an asset of a finite magnitude.

Q.68. Mention the various forces of nature which contribute to the formation of soil.
Ans. Change in temperature, action of running water, wind and glaciers, activities of decomposers etc. contribute to the formation of soil

HOTS

Q. 1. Do you think that resources are free gifts of nature as is assumed by many ? Justify your answer with any three suitable arguments. ICBSE 2012]
Ans. 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.

Q. 2. What is the importance of natural resources ? [CBSE 2014]
Ans. (i) Resources are used to satisfy human wants.
(ii) Resources are base for economic development for example water, fossil fuel, solar energy is required for power production.
(iii) Resources are vital for human survival as well as maintaining the quality of life.
(iv) Land which is a natural resource support natural vegetation, wild life, human life and all economic activities.
(v) Water which is another natural resource is essential for human, plant and wild life.

Q. 3. "India has land under a variety of relief features." Justify. [CBSE 2014]
Or
What are the main advantages of India's land under a variety of relief features ? [CBSE 2010, 2011]
Ans. 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.

VBQ

Q.1. 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. [GBSE 2012, 14]
Ans. (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.

Q.2. "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. [CBSE 2013]
Ans. (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 modem 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 shout not compromise with the need of future generations'. .

Q.3. Why is there a need to conserve resources ? What was Gandhiji's opinion regarding the conservation of resources ? [CBSE Sept. 2012]
Or
Explain the importance of conservation of resources. [CBSE Sept. 2010, 2011,2014]
Or
Why is it essential to have resource planning ? Give three reasons. [CBSE 2014]
Ans. (i) Limited supply : Most of the resources have limited supply as compared to their demand for example supply of fossil fuels is limited.
(ii) Pollution and global warming :
Overutilisation of natural resources may lead to environmental pollution for example over use of fossil fuel is a major factor responsible for global warming.
(iii) Socio economic problem : The destruction of forests and wildlife is not just a biological issue. The biological loss is strongly correlated with the loss of cultural diversity. Such losses have increasingly marginalised and impoverished many indigenous and other forest-dependent communities, who directly depend on various components of the forest and wildlife for food, drink, medicine, culture, spirituality, etc. Within the poor, women are affected more than men. In many

societies, women bear the major responsibility of collection of fuel, fodder, water and other basic subsistence needs. As these resources are depleted, the drudgery of women increases and sometimes they have to walk for more than 10 km to collect these resources. This causes serious health problems for women and negligence of home and children because of the increased hours of work, which often has serious social implications. Gandhiji was very apt in voicing his concern about resource conservation. He said, "There is enough for everybody's need, and not for anybody's greed. " According to him, they were the greedy and selfish individuals who were responsible for depletion of resources. He was in favour of producing for the masses than mass production.

Q.4. Why is there a need for resource planning ? What can happen if we don't follow the principle of resource planning ?
Ans. (i) Most of the resources are limited in supply.
(ii) Most of the resources are unevenly distributed over the country.
(iii) Overutilisation of the resources may lead to pollution of the environment.
(iv) There is a need to plan the human resources because only then we would be able to develop our natural resources.
Effects :
(i) Energy crisis
(ii) Global warming

Q. 5. Explain any four reasons responsible for land degradation in India.
Or
Explain any four human activities which are mainly responsible for land degradation in India. Give any two suggestions to check land degradation. [CBSE 2014]
Ans. (i) Mining : Mining is one of the major factors responsible for land degradation. In states like Jharkhand, Chhattisgarh, Madhya Pradesh and Odisha, deforestation due to mining have caused severe land degradation.
(ii) Overgrazing : During the long dry period, grass is grazed to the ground and torn out by the roots by animals. This leads to loosening of soil and it is easily washed away by rains. In states like Gujarat, Rajasthan, Madhya Pradesh, and Maharashtra overgrazing is one of the main reasons for land degradation.
(iii) Overirrigation : In the states of Punjab, Haryana, western Uttar Pradesh, overirrigation is responsible for land degradation due to waterlogging which leads to increase in salinity and alkalinity in the soil.
(iv) Processing of minerals : The mineral processing like grinding of limestone for cement industry and calcite and soapstone for ceramic industry generate huge quantity of dust in the atmosphere. It retards the process of infiltration of water into the soil after it settles down on the land. In recent years, industrial effluents as waste have become a major source of land and water pollution in many parts of the country.
Suggestions :
(i) Plant more trees
(ii) We should not waste paper.

Notes

♦ **Abiotic Resources :** All those resources which are composed of non-living things are called abiotic resources. Land, water, soil and minerals are some of the abiotic resources.

♦ **Afforestation :** Afforestation means planting trees.

♦ **Biotic Resources :** Biotic resources are those which have life. Forests and their products, agricultural crops, animals and birds, marine life are some of the examples of biotic resources.

♦ **Bad Land :** It is a land which is unsuitable for cultivation. Mainly soil erosion converts a fertile land into a bad land.

♦ **Conservation :** Conservation of natural resources means judicious and planned use of natural resources so that we can get the maximum possible benefit from these resources over the longest possible period of time.

♦ **Fallow Land :** It is a cultivable land which is uncropped or partially cropped for one or more seasons so that it can regain its fertility.

♦ **Gully Erosion :** Gully erosion takes place when running water cuts deep ravines in the absence of vegetation. This type of erosion makes the soil unfit for cultivation.

♦ **Land Degradation :** Rendering the land unfit for cultivation is called degradation of land.

♦ **Renewable Resources :** These are the resources which can be renewed or reproduced by physical, mechanical or chemical processes in a given period of time. Solar energy, forest, agricultural products,etc. are some of the examples of the renewable resources. CBSE (2009 (F))

♦ **Man-made Resources :** These are those resources which are created by human beings with the help of machines.

♦ **Natural Resources :** Natural endowments in the form of land, water, vegetation and minerals are called natural resources. Natural resources are free gifts of nature.

♦ **Non-renewable Resources :** These are those resources which once used, cannot be replenished. Coal, petroleum, minerals like iron ore,, copper ore, are some of the examples of non-renewable resources. CBSE (2009 (F))

♦ **Ravines :** A narrow valley created by the action of running water. This is a land which is unsuitable for cultivation due to soil erosion.

♦ **Resource Planning :** It is a technique or skill of proper utilisation of resources.

♦ **Soil :** The uppermost layer of the earth's crust, which is loose, fragmented and useful for growing plants is called the soil.

♦ **Soil Erosion :** The removal of soil by the forces of nature, particularly wind and water.

♦ **Uncultivable Land :** This land cannot be used for cultivation because of several reasons.

♦ **Shelter belts :** Rows of trees which are planted in between the crops are known as shelter belts.

♦ **Resources :** 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 Resources. ,

♦ **Stock :** These are the materials in the environment which have the potential to satisfy the human needs, but could not be used as the human beings do not have the appropriate technology.

♦ **Individual resources :** Resources which are owned by private individuals are known as individual resources. Plot, fields, house, car, book, etc. are some examples of individual resources.

♦ **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.

♦ **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 private property.

♦ **International resources :** These resources are owned and regulated by international institutions. The oceanic resources beyond 200 kms of Exclusive Economic Zone belong to open ocean and no individual country can utilise these without the concurrence of international institutions.

♦ **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.

♦ **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 level of their feasibility. For example, India has a cumulative total of 2,47,847 million tones of coal resources.

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Question-1:
What is biodiversity? Why is biodiversity important for human lives?
Solution:
Biodiversity is the degree of variation of life forms within a given ecosystem, or on an entire planet. There are millions of living organisms on planet earth. All these living organisms, including man, are interdependent on each other.

Question-2
How have human activities affected the depletion of flora and fauna? Explain.
Solution:
Cutting down of forests for agricultural expansion, large scale developmental projects, grazing and fuel wood collection and for urbanization has led to the depletion of flora and fauna.
Question-3
Describe how communities have conserved and protected forests and wildlife in India?
Solution:
In India many traditional communities still live in the forests and depend on their livelihood for forest produce. These communities are working hand in hand with the government to conserve forests.
In Sariska Tiger Reserve, Rajasthan, villagers fought against mining activities. In Alwar district of Rajasthan, local communities belonging to five villages have set their own rules and regulations in 1,200 hectares of forest land. They have named it as the Bhairodev Dakav 'Sonchuri'. Hunting is not allowed in these lands and outside encroachments are prohibited.
The famous Chipko movement was started in the Himalayan region to stop deforestation. People belonging to the local community took to afforestation in a big way. Indigenous species were cultivated and protected.
Involving local communities in protecting the environment, and stopping degradation of forests has reaped many benefits.
Question-4
Write a note on good practices towards conserving forest and wildlife.
Solution:
In 1972, the Indian Wildlife (Protection) Act was implemented. It made protecting specific habitats a law. A list of wildlife species that had to be protected was published and hunting these animals was against the law.
National Parks and Wildlife Sanctuaries were set up in many states to protect endangered species.
Under the Wildlife Act of 1980 and 1986, several insects have also been included in the list of protected species. Butterflies, moths, beetles, dragonflies and even certain plants are included in the protected list.
"Project Tiger" was initiated in 1973 by the government of India to protect tigers. It is one of the most well publicized wildlife campaigns in the world.

Q.1. "Conservation of rapid decline in wildlife population and forestry has become essential." Explain.
Or
Why do we need to conserve our forests and wildlife resources ? Explain any two steps taken by the communities to protect our forest and wildlife resources. [CBSE 2013]
Or
Why is conservation of forests and wildlife necessary ? In what way have conservation projects changed in the recent years ? [CBSE 2010]
Or
Assess the need for the conservation of forests and wildlife in India. [CBSE 2012]
Ans. (i) Loss of cultural diversity : The loss of forest and wildlife is not just a biological issue but it is also correlated with cultural diversity. There are many forests-dependent communities, which directly depend on various components of the forests and wildlife for food, drinks, medicines, etc. Many of tribal communities like Muria Gonds, Dhurwas, Bhatras, etc. have lost their habitat because of the destruction of forests.
(ii) Complex web of living organisms : We humans along with all living organisms form a complex

web ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms recreate the quality of the air we breathe, the water we drink and the soil that produce our food without which we cannot survive.
(iii) Large scale destruction of forests : Between 1951 and 1980, according to the Forest Survey of India, over 26,200 sq. km of forest areas were converted into agricultural lands all over India.

Q.2. Describe the different types of plant and animal species found in India. [CBSE 2013]
Or
Explain any five different categories of existing plants and animal species based on the International Union for Conservation of Nature and Natural Resources with examples. [CBSE 2013]
Ans. (i) Normal species : These include those whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents etc.
(ii) Endangered species : These include those species which are in danger of extinction. The several of such species is difficult if the negative factors that have led to a decline in their population continue to operate. For example, black buck, crocodile, Indian wild ass, etc.
(iii) Vulnerable species : These include the species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate. For example, blue sheep, gangetic dolphin etc.
(iv) Rare species : They may move into the endangered or vulnerable category for example, blue bear, wild Asiatic buffalo.
(v) Endemic species : These are found in some particular areas usually isolated by natural or geographical barriers. For example, Andaman teal, Nicobar prigo.

Q.3. What steps have been taken by the government for the conservation of forest and wildlife in India ? Explain. [CBSE 2014]
Or
Write any three effective practices towards conserving forests and wildlife. [CBSE Sept. 2010]
Or
Explain any three measures taken by the Indian Government to protect wildlife. [CBSE Sept. 2010, 2011]
Ans. (i) National parks, biosphere and wildlife sanctuaries : To protect the biodiversity, the Indian government has established 100 national parks, 515 sanctuaries and 17 biosphere reserves.
(ii) The Indian Wildlife Protection Act :
The Indian Wildlife Protection Act was implemented in 1972, with various provisions for protecting habitats. An all India list of protected species was also published. The thrust of the programme was towards protecting the remaining population of certain endangered species by banning hunting, giving legal protection to their habitats and restricting trade in wildlife.
(iii) Projects for protecting specific animals : The central government has also announced several projects for protecting specific animals which were grately threatened, including the tiger, the one-horned rhinoceros, the Kashmir stag or hangul, the three types of crocodiles – the freshwater crocodile, the saltwater crocodile and the Gharial, the Asiatic lion and others.
(iv) Forest Policy : India is one of the few countries which has a forest policy since 1894. It was revised in 1952 and again in 1988. The main plank of the forest policy is protection, conservation and development of forests.
(v) Forest Research Institutes : Indian government has created many forest Research Institutes for the research, protection and development of the forests. IFS Dehradun is the oldest research institution of the country.

Q.4. Distinguish between Reserved forests, Protected forests and Unclassed forests.
Or
Classify the forests into three categories. [CBSE 2014]

Reserved Forests	Protected Forests	Unclassed Forests
(/) These are permanently earmarked either for production or other forest produce.	These are protected from any further depletion.	These consist of inaccessible forests or wastelands.
(/'/) More than 50% of the total forest land of India has been declared as reserved forests.	Almost 1 /3rd of the total forest area of India is called as the protected forest.	These consist of only 16% of the total forest areas of India.
(iii) These are controlled by the government.	These are controlled by the government.	These are owned by government and private individuals.
(/V) The forests of J & K, Andhra Pradesh, Uttarakhand, Kerala, Tamil Nadu, West Bengal and Maharashtra fall in this category.	The forests of Bihar, Haryana, Punjab, Himachal Pradesh, Odisha and Rajasthan fall under this category.	The forests of north-eastern states and parts of Gujarat fall under this category.

Q.5. "Conservation projects have changed their focus in the recent years." Explain. [CBSE 2014]
Or
In what ways the conservation project has changed in the recent years ?
Ans. The conservation projects are now focusing on biodiversity rather than on a few of its components. There is now a more intensive search for different conservation measures. Increasingly, even insects are beginning to find a place in conservation planning. In the notification under Wildlife Act of 1980 and 1986, several hundred butterflies, moths, beetles and one dragonfly have been added to the list of protected species. In 1991, for the first time plants were also added to the list, starting with six species. The clear lesson from the dynamics of both environmental destruction and reconstruction in India is that local communities everywhere have to be involved in some kind of natural resource management.

Q.6. "Maintenance of ecological system is of utmost importance." How can you contribute to conserve it and what values are developed through this activity ? [CBSE 2014]
Ans. (i) We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms re-create the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive. Forests play a key role in the ecological system as these are also the primary producers on which all other living beings depend.
(ii) We should save our environment by switching to green technology and by contributing less to the emission of carbon dioxide.
(iii) We should plant more and more trees, say no to plastic bags, travel by public transport, etc.

(iv) It will improve the quality of our lives as well as our children and will save our money to switch to alternate sources for power.

Q.1. What is biodiversity ? [CBSE Sept. 2012]
Ans. Biodiversity is the sum total of all the varieties of species of plants, animals and micro-organisms living on the earth. It also includes the habitat in which they live. Some scientists estimate that more than 10 million species live on our earth and some believe that this number can be more than 100 million.

Q.2. What is importance of forests ?
Or
"Forests play a key role in the ecological system." Highlight the value of forests in our life. [CBSE Sept. 2013]
Or
Why is it necessary to increase the area of forest in India ? [CBSE 2013]
Ans. (i) Forests play a key role in the ecological system as these are the primary producers on which all other living beings depend.
(ii) Many forest dependent communities directly depends on them for food, drink, medicine, culture, spirituality etc.
(iii) Forest provide us timber.
(iv) Forests also provide bamboo, wood for fuel, grass, charcoal, fruits, flowers, etc.

Q.3. "The diverse flora and fauna of India is under threat". Justify by giving reasons.
Ans. (i) At least 10% of India's recorded wild flora and 20% of its mammals are on the threatened list.
(ii) The cheetah, pink-headed duck, mountain quail, forest spotted owlet, and plants like madhuca insignis (a wild variety of mahua) and hubbardia heptaneuron (a species of grass) have already been categorised as critical, i.e. they are on the verge of extinction.
(iii) Many smaller animals like insects and plants have become extinct.

Q.4. What are Normal species ? How are these different from endangered species. Give four examples.
Ans. Normal species are the species whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents, etc.
Whereas the endangered species are the species which are in danger of extinction. The survival of such species is difficult if the negative factors that have led to a decline in their population continue to operate. Black buck, crocodile, Indian wild ass, Indian rhino, lion tailed macaque, etc., are examples of endangered species.

Q.5. What are Vulnerable species ? Give four examples. [CBSE Sept.'2012]
Ans. These are the species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate such species. The examples of such species are Blue sheep, Asiatic elephant, Gangetic dolphin, etc.

Q.6. What are Rare species ? Give four examples. [CBSE Sept. 2012]
Ans. Species with small population may move into the endangered or vulnerable category if the negative factors affecting them continue to operate. The examples of such species are the Himalayan brown bear, Wild Asiatic buffalo, Desert fox and hombill, etc.

Q.7. What are Endemic species ? Give four examples.
Ans. The species which are only found in some particular region usually isolated by natural or geographical barriers. The examples of such species are the Andaman teal, Nicobar pigeon, Andaman wild pig, etc.

Q.8. What are Extinct species ? Give four examples.
Ans. These species which are not found after searches of known or likely areas where they may occur. These species may be extinct from a local area, region, country, continent or the whole earth. The examples of such species are the Asiatic cheetah, pink headed duck, etc.

Q.9. Large scale development projects have also contributed significantly to the loss of forests. Explain.
Ans. .(i) Since 1951, over 5,000 square kilometres of forests were cleared for river valley projects.
(ii) Clearing of forests is still continuing because of new projects like the Sardar Sarovar Project, the Ranjit Sagar Dam Project, etc. Many wildlife sanctuaries are seriously threatened due to large scale mining activities.

Q.10. (i) Which factor is often cited as the cause of environmental degradation in the third world countries ?
(ii) Mention any four factors which have led to the decline of India's biodiversity.
Ans. (i) Overpopulation.
(ii) (a) Habitat destruction
(b) Hunting
(c) Poaching
(d) Overexploitation
(e) Environmental pollution
(f) Forest fires.

Q.11. "Developed countries and rich people are considered the major factors for environmental degradation." Explain.
Ans. (i) Developed countries consume more resources than underdeveloped or developing countries. For example an average American consumes 40 times more resources than an average Somalian.
(ii) The rich class probably causes more ecological damage than the poor class because energy consumption level of the rich is high as compared to poor.
(iii) Rich people use non-renewable resources on a large scale.

Q.12. "Grazing and fuel-wood collection are not responsible for deforestation in India." Support the statement with suitable reasons. [CBSE 2013]
Ans. (i) Overgrazing destroys the saplings and plants are tom out by the roots by animals.
(ii) Overgrazing also leads to soil erosion. Soil erosion is one of the important factor for deforestation.
(iii) While collecting fuel wood the locals also destroy the trees, which leads to deforestation.

Q.13. "The conservation projects are now focusing on biodiversity rather than on a few of its components." Explain.
Ans. (i) Inclusion of small insects and other animals in planning : Under the new plans, even insects and other smaller species of animals are beginning to find a place in conservation planning.
(ii) New notifications : In the notification under the Wildlife Act of 1980 and 1986, several hundred butterflies, moths, beetles, and one dragonfly have been added to the list of protected species. In 1991, for the first time, plants were also added to the list, starting with six species.

Q.14. With reference to the type and distribution of forests, answer the following questions :
(i) How are they classified ?
(ii) Which type of forests are regarded most valuable as far as the conservation of forest and wildlife resources are concerned ?
Ans. (i) (a) Reserved forests
(b) Protected forests
(c) Unclassed forests.
(ii) Reserved forests.

Q.15 Define the following :
(i) Reserved forests
(ii) Protected forests
(iii) Unclassed forests
Or
How many types of forests are classified in India ? Explain. [CBSE Sept. 2010]
Ans. (i) Reserved forests : These are forests which are permanently earmarked either to the production of timber or other forest produce and in which right of grazing and cultivation is seldom allowed.
(ii) Protected forests : These are forests in which the right of grazing and cultivation are allowed subject to a few minor restrictions.
(iii) Unclassed forests : These consist largely of inaccessible forests or unoccupied wastes.

Q.16. (a) What was the Chipko Movement ?
(b) What is JFM ? What is its objective ?
(c) Name the state which took initiative for the Joint Forest Management.
Ans. (a) (i) The movement was launched in the Himalayas against deforestation.
(ii) The movement has also shown the community afforestation with indigenous species can be enormously successful.
(iii) The movement has highlighted the role of local communities in forest conservations.
(b) It is Joint Forest Management. It is programme which involves local communities in the management and restoration of degraded forests.
(c) Odisha.

Q.17. (i) Name any two states which have the largest area under permanent forests (ii) Name any four states which have a large area under reserved forests.
(ii) Name any four states which have the large area under unclassed forests.
Ans. (i) (a) Madhya Pradesh
(b) Jharkhand
(ii) (a) Jammu and Kashmir
(b) Andhra Pradesh
(c) Uttarakhand
(d) Kerala
(iii) (a) Gujarat
(b) Manipur
(c) Assam
(d) Sikkim

Q-18. 'India has rich flora and fauna.' Explain.
Ans. (i) India is one of the world's richest countries in terms of its vast array of biological diversity.

(ii) It has nearly 8% of the total number of species in the world. (1.6 million approximately.)
(iii) Of the estimated 47,000 plant species, about 15,000 flowering species are indigenous to India.

Q-19- Mining is one of the major important factors responsible for deforestation. Explain.
Ans. (i) Mining operation needs big machines, labour, roads, railways, etc. All these lead to deforestation.
(ii) The Buxar Tiger Reserve in West Bengal is seriously threatened due to mining operations. The mining operations have caused severe ecological damage to the Reserve and region around.
(iii) The mining activities have blocked the migration route of several species, including the great Indian elephants, thus, disturbing their natural habitat.

Q.20. What are the main objectives of JFM ? [CBSE Sept. 2012, 2014]
Ans. (i) Under the Joint Forest Management programme, local communities are involved in the management and restoration of degraded forests.
(ii) The major purpose of the JFM is to protect the forests from encroachments, grazing, theft and fire and also to improve the forests in accordance with an approved Joint Forest Management plan.
(iii) In return, the members of these communities are entitled to intermediary benefits like non-timber forest produces.

Q.21. Highlight any three differences between endangered species and extinct species. [CBSE Sept. 2010]

Q.21. Highlight any three differences between endangered species and extinct species. ***[CBSE Sept. 2010]***

Ans.

Endangered Species	Extinct Species
1. These are species which are in danger of extinction.	1. These are species which are not found after searches of known or likely areas where they may occur.
2. The survival of such species is difficult if the negative factors that have led to decline in their population continue to operate.	2. A species may be extinct from a local area, region, country, continent or the entire earth.
3. Black buck, crocodile, Indian wild ass, lion tailed macaque etc., are examples of endangered species.	3. Asiatic cheetah, pink head duck are examples of extinct species.

Q.22 What has been the contribution of the Indian Wildlife Protection Act in protecting habitats in India ? Explain. [CBSE Sept. 2010, 2011]

Ans. (i) An all-India list of protected species was published. The thrust of the programme was towards protecting the remaining population of certain endangered species by banning hunting, giving legal protection to their habitats, and restricting trade in wildlife.

(ii) The central government also announced several projects for protecting specific animals, which were grately threatened, including the tiger, the one-horned rhinoceros, the Kashmir stag or hangul, three types of crocodiles—fresh water crocodile, saltwater crocodile and the Gharial, the Asiatic lion, and others.

(iii) Many national parks, wildlife sanctuaries and bioreserves were established to protect and conserve the wildlife.

Q.23. How does biological loss of forest and wildlife correlate with loss of cultural diversity? [CBSE Sept. 2010, 2011]
Ans. (i) Biological loss of forest and wildlife has increasingly marginalised and impoverished many indigenous and other forest dependent communities, who directly depend on various components of the forest and wildlife for food, drink, medicine, culture, spirituality, etc.
(ii) The indirect impact of degradation such as severe drought or deforestation-induced floods, etc., also hits the poor the hardest. Poverty in these cases is a direct outcome of environmental destruction.
(iii) Due to biological loss of forest and wildlife many tribal communities have disappeared.

Q.24. "Nature-worship is an old age belief". Explain how has it helped in the conservation of forests and wildlife. [CBSE Sept. 2013]
Ans. (i) Nature-worship is an age old tribal belief based on the premise that all creations of nature have to be protected. Such beliefs have preserved several virgin forests in pristine form called Sacred Groves (the forests of God and Goddesses}. These patches of forest or parts,of large forests have been left untouched by the local people and any interference with them is banned.
(ii) The Mundas and the Santhal of Chota Nagpur region worship mahua (Bassia latifolia) and kadamba (Anthocaphalus cadamba) trees, and the tribals of Odisha and Bihar worship the tamarind (Tamarindus indica) and mango (Mangifera indica) trees during weddings.
(iii) Peepal and banyan trees are also considered sacred and worshipped in most parts of India.
(iv) Sacred qualities are often ascribed to springs, mountain peaks, plants and animals which are closely protected.
(v) In and around Bishnoi villages in Rajasthan, herds of blackbuck, (chinkara), nilgai and peacocks can be seen as an integral part of the community and nobody harms them.

Q.25. What is Himalayan Yew ? Why is it under great threat at present ? [CBSE 2012]
Ans. The Himalayan Yew is a medicinal plant which is found in various parts of Himachal Pradesh and Arunachal Pradesh.
(i) It is under great threat due to over-exploitation.
(ii) A chemical compound called 'taxol' is extracted from the bark, needles, twigs and roots of this tree.
(iii) So, it is now biggest selling anti-cancer drug in the world.

VSAQ

Q.1. What is biodiversity ?
Ans. It is the sum total of all the varieties of species of plants, animals and microorganisms living on the earth.

Q.2. What is flora ?
Ans. Plants of particular region or period are referred to as flora.

Q.3. What is fauna ?
Ans. Species of animals of a particular region or period are referred as fauna.

Q.4. "India is one of the world's richest countries in terms of its vast array of biological diversity". Justify.
Ans. India has nearly 8% of the total number of species in the world.

Q.5. What is IUCN ? [CBSE 2013]
Ans. International Union for Conservation of Nature and Natural Resources.

Q-6. What are normal species ? [CBSE.2014]
Ans. Species whose population levels are considered to be normal for their survival are classified as normal species.

Q.7. What are endemic species ?
Ans. Species which are found in some particular areas usually isolated by natural or geographical barriers.

Q.8. What are endangered species ?
Ans. The species, which are in danger of extinction are called endangered species.

Q.9. What are vulnerable species ?
Ans. The species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate.

Q-10. What are extinct species ?
Ans. The species which are not found after searches of known or likely areas where they may occur.

Q.11. Give two examples of rare species ?
Ans. (i) Wild Asiatic buffalo (ii) Hombill

Q.12. Categorise the following as endangered or vulnerable species- Asiatic elephant, Indian Rhino.
Ans. (i) Asiatic elephant – Vulnerable species.
(ii) Indian Rhino – Endangered species.

Q.13. Categorise the following as extinct or normal species- Pine, Asiatic Cheetah.
Ans. (i) Pine – Normal species
(ii) Asiatic Cheetah – Extinct species

Q.14. Categorise the following as endemic and endangered species- Lion tailed macaque, Nicobar Pigeon.
Ans. (i) Lion tailed macaque – Endangered.
(ii) Nicobar pigeon – Endemic.

Q.15. Mention any two factors responsible for depleting our forests and wildlife.
Ans. (i) Expansion of agriculture (ii) Mining

Q.16. Name the Tiger Reserve which is seriously threatened by dolomite mining activity.
Ans. The Bauxa Tiger Reserve in West Bengal.

Q.17. Mention a social impact of deforestation.
Ans. In many societies, women bear the major responsibility of collection of fuel, fodder, water and other basic subsistence needs. As these resources are depleted, the drudgery of women increases and sometimes they have to walk for more than 10 km to collect these resources.

Q.18. Mention any wildlife protection programme ?
Ans. The Indian Wildlife Act 1972.

Q.19. Mention any one step which was undertaken under Indian Wildlife Act to protect the wildlife.
Ans. Trade in wildlife was declared illegal.

Q.20. What are permanent forests ?
Ans. Reserved and protected forests are known as permanent forests.

Q.21. Which state has the largest area under permanent forests ?
Ans. Madhya Pradesh. * .

Q.22. Name any two states which' have large percentage of reserved forests of its forest area. [CBSE 2014]
Ans. Jammu and Kashmir and Andhra Pradesh.

Q.23. Name any two states which have bulk of its forests area under protected forests.
Ans. Punjab and Haryana.

Q.24. Name any two states which have bulk of its forests area under unclassed forests.
Ans. Assam and Tripura.

Q.25. Name the place of state where people have fought against mining by citing the Wildlife Protection Act.
Ans. Sariska Tiger Reserve – Rajasthan.

Q.26. What is Chipko Movement ?
Ans. It was a movement launched by the people of the Himalayas against deforest.

Q.27. Name any two farmers/citizens group which have shown that adequate levels of diversified crop production without use of synthetic chemicals are possible and economically viable.
Ans. Beej Bachao Andolan and Navdanya

Q.28. What is JFM ?
Ans. JFM (Joint Forest Management) was a movement launched to manage and restore degraded forests by involving the local communities.

Q.29. Name the state which was first to pass the JFM resolution. [CBSE 2014]
Ans. Odisha

Q-30. Name any four movements which were launched by local communities for the protection of forests or wildlife.
Ans. (a) Chipko Movement
(b) Beej Bachao Andolan
(c) Narmada Bachao Andolan
(d) Bhairodev Dakav Sonchuri

HOTS

Q. 1. How has the IUCN classified the existing animals ? [CBSE Sept. 2014]
Ans. 1. Normal Species 2. Endangered Species 3. Vulnerable Species 4. Rare Species 5. Endemic Species 6. Extinct Species

Q. 2. Classify the following animals according to the IUCN. Asiatic Cheetah, Nicobar Pigeon, Asiatic Elephant, Blue Sheep, Indian Rhino.
Ans. (i) Endangered – Indian Rhino
(ii) Vulnerable – Asiatic Elephant, Blue Sheep
(iii) Endemic – Nicobar Pigeon
(iv) Extinct – Asiatic Cheetah

Q. 3. What is 'Project Tiger' ? When was it launched ? Mention any four tiger reserves of India.
Or
Write a brief note on 'Project Tiger'. [CBSE Sept. 2010]
Ans. Project Tiger was a wildlife conservation project initiated in India in 1973 to protect the Bengal Tiger. There are more than 42 tiger reserves in India covering an area of about 37,761 sq. km.
Four Tiger Reserves in India are :
(i) The Corbett National Park – Uttarakhand
(ii) The Sunderban National Fbrk – West Bengal
(iii) The Manas Tiger Reserve – Assam (iu) The Periyar Tiger Reserve – Kerala

Q. 1. The greatest damage inflicted on Indian forests was due to the extension of agriculture. Explain. Suggest any two ways to increase area under forests.
Ans. (i) The expansion of agriculture started during the colonial period.
(ii) Between 1951 and 1980, according to the Forest Survey of India, over 26,200 sq. km of forest areas were converted into agricultural lands all over India.
(iii) Substantial parts of the tribal belts, especially in the north-eastern and central India, have been deforested or degraded by Shifting Cultivation (jhum), a type of 'slash and burn' agricultural method.
Suggestions :
(i) Planting more trees
(ii) Celebrating Van Mahotsav at community and school level.

Q. 2. Give three reasons why we need to save the biodiversity of our planet. How can you contribute in the given cause? [CBSE Sept. 2012, 2013]
Or
Explain the importance of biodiversity for human beings. [CBSE 2010, 14]
Ans. (i) We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms recreate the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive.
(ii) The destruction of forests and wildlife is not just a biological issue. The biological loss is strongly correlated with the loss of cultural diversity.
(iii) It also preserves the genetic diversity of plants and animals for better growth of species and breeding.
Our contribution :

(i) Minimising wastage of resources.
(ii) Use Jute bags.
(iii) Planting more trees.

Q. 3. Mention any four major threats to the population of tiger ? Explain the efforts made by the government to protect them. [CBSE 2013]
Ans. (i) Poaching for trade
(ii) Shrinking habitat
(iii) Depletion of prey base species
(iv) Growing human population
(v) The trade of tiger skins and the use of their bones in transitional medicines, especially in the Asian countries left the tiger population on the verge of extinction.

Efforts made by the government to protect them are as under :
(i) Project Tiger, one of the well-publicised wildlife campaigns in the world, was launched in 1973.
(ii) There are 42 tiger reserves in India covering an area of 37,761 sq km.
(iii) Tiger conservation had been viewed not only as an effort to save an endangered species, but with equal importance as a means of preserving bio types of sizeable magnitude.
(iv) Some of the tiger reserves of India are Corbett National Park in Uttarakhand, Sunderbans National Park in West Bengal etc.

Q. 4. Explain the social impacts of loss of forests.
Or
"Forest and wildlife are vital to the quality of life and environment in the subcontinent." Explain. [CBSE 2012, 2013]
Ans. (i) Loss of cultural diversity : The loss of forest and wildlife is not just a biological issue but it is also correlated with cultural diversity. There are many forests-dependent communities, which directly depend on various components of the forests and wildlife for food, drinks, medicines, etc. Many of tribal communities like Muria Gonds, Dhurwas, Bhatras, etc., have lost their habitat because of the destruction of forests.
(ii) Impact on women : Even among the poor, women are affected more than men. In many societies, women bear the major responsibility of collection of fuel, fodder, water and other basic needs. As these resources are depleted, the drudgery of women increases. Most of the time they have to walk for more than 10 km to collect the basic necessities. This causes serious health problems for women in the negligence of home and children because of the increased hours of work, which often has serious social implications.
(iii) Poverty : Deforestation is also responsible for poverty. It is considered as a direct outcome of environmental destruction. Most of the poor people or tribal people depend on forests for their basic needs. Now if the forests are destroyed, these poor people will be deprived of the basic necessities.

Q. 6. Describe how communities have conserved and protected forests and wildlife in India. What moral lessons you have learnt from this ? [CBSE 2014]
Ans. (i) In Sariska Tiger Reserve : Rajasthani villagers have fought against mining by citing the Wildlife Protection Act. In many areas, villagers themselves are protecting habitats and explicitly rejecting government involvement.
(ii) The inhabitants of five villages in the Alwar district of Rajasthan have declared about 1,200 hectares of forest area as the 'Bhairodev Dakav Sonchuri. The community has declared their own set of rules and regulations which do not allow hunting and are protecting the wildlife against any outside encroachments.
(iii) Many states have launched the Joint Forest Management programme to involve local

communities in the management and restoration of degraded forests. Odisha was the first state to launch this programme.
(iv) Improper farming techniques, defective methods of farming are also responsible for depletion of our biodiversity. So many farmers and citizen groups support the Bee) Bachao Andolan in Tehri and Navdanya have developed or are using various crop production methods which do not use synthetic chemicals for growing crops.
(v) The famous Chipko Movement was launched by the women of Chamoli in northern India, saved more than 12,000 sq. km. area of forests just by hugging the trees when the lumberjacks attempted to cut them.

Moral lessons :
• Conservation strategies can be successful only with the participation of local people.
• The clear lesson from the dynamics of both environmental destruction and reconstruction in India is that local communities everywhere have to be involved in some kind of natural resource management. But there is still a long way to go before local communities are at the centre-stage in decision making. Accept only those economic or developmental activities, that are people centric, environment-friendly and economically rewarding.

Q- 7. Which values do the wildlife sanctuaries of any country promote ? [CBSE 2013]
Ans. (i) Wildlife sanctuaries have been formed to conserve and maintain the diversity and integrity of natural heritage.
(ii) They help to preserve natural ecosystem.
(iii) They teach us the value of sharing because we humans along with all living organisms form a complex web of ecological system
in which we are only a part and very much dependent on this system for our own existence.

Q. 8. List any three examples of environmental degradation that you may have observed around you. [CBSE 2013]
Ans. (i) Polluted air and water : Industries and vehicles release harmful gases and chemicals which are responsible for degradation of water and air.
(ii) Land degradation : Overuse of fertilisers and chemicals have resulted in land degradation.
(iii) Loss of biodiversity: Habitat destruction, hunting, poaching has led to the decline in biodiversity.

Notes

♦ **Biosphere :** Part of the earth which is covered by living organisms both plants and animals.

♦ **Ecosystem :** An integrated unit consisting of the community of living organisms and the physical environment.

♦ **Flora :** Plants of a particular region or period are referred to as flora.

♦ **Fauna :** Species of animals are known as fauna.

♦ **Forest :** Extensive area covered with trees.

♦ **Wildlife Sanctuary :** A reserved area for preserving natural beauty, e.g., wildlife.

♦ **Biodiversity :** It is the sum total of all the varieties of species of plants, animals and micro-organisms living on the earth.

♦ **Wasteland :** Land which is not fit for cultivation.

♦ **Normal species :** The species whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents, etc.

♦ **Endangered species :** The species which are in danger of extinction.

♦ **Vulnerable species :** These are some species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate.

♦ **Rare species :** Species with small population may move into the endangered or vulnerable category if the negative factors affecting them continue to operate.,

♦ **Endemic species :** These are species which are only found in some particular areas usually isolated by natural or geographical barriers. For example Nicobar pigeon.

♦ **Extinct species :** These are species which are not found after searches of known or likely areas where they may occur. A species may be extinct from a local area, region, country, continent or the entire earth. Examples of such species are the Asiatic cheetah, pink head duck.

♦ **The Indian Wildlife Act :** It was an act implemented in 1972, with various provisions for protecting natural habitats.

♦ **Reserved Forests :** These are the most valuable forests as far as the conservation of forest and wildlife resources are concerned.

♦ **Protected forests :** These are the forests which are protected from any further depletion.

♦ **Unclassed forests :** These are forests and wastelands belonging to both government and private individuals and communities.

♦ **Permanent forests :** Reserved and protected forests are referred as permanent forest estates maintained for the purpose of producing timber and other forest produce and for protective reasons.

♦ **Chipko Movement :** It was a movement launched by the people of the Himalayas against deforestation.

♦ **Joint Forest Management :** It was a programme launched for management and restoration of degraded forests.

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Question-1
Based on the information given below classify each of the situations as 'suffering from water scarcity' or 'not suffering from water scarcity' Region with high annual rainfall
Solution:
'not suffering from water scarcity'
Question-2:
Based on the information given below classify each of the situations as 'suffering from water scarcity' or 'not suffering from water scarcity'. Region having high annual rainfall and large population
Solution:
'not suffering from water scarcity'
Question-3
Based on the information given below classify each of the situations as 'suffering from water scarcity' or 'not suffering from water scarcity' Region having high annual rainfall but water is highly polluted.
Solution:
'suffering from water scarcity'
Question-4.
Based on the information given below classify each of the situations as 'suffering from water scarcity' or 'not suffering from water scarcity' Region having low rainfall and low population.
Solution:
'suffering from water scarcity'
Question-5
Which one of the following statements is not an argument in favour of multipurpose river projects?
(a) Multi-purpose projects bring water to those areas, which suffer from water scarcity.
(b) Multi-purpose projects by regulating water flow helps to control floods.
(c) Multi-purpose projects lead to large-scale displacements and loss of livelihood.
(d) Multi-purpose projects generate electricity for our industries and our homes.
Solution:
(a) Multi-purpose projects bring water to those areas, which suffer from water scarcity.
Question-6
Here is a false statement. Identify the mistakes and rewrite them correctly.
Multiplying urban centers with large and dense populations and urban lifestyles have helped in proper utilisation of water resources.
Solution:
Multiplying urban centers with large and dense populations and urban lifestyles have helped in improper utilisation of water resources.
Question-7.
Here is a false statement. Identify the mistakes and rewrite them correctly. Regulating and damming of rivers does not affect the river's natural flow and its sediment flow.
Solution:
Regulating and damming of rivers affect the river's natural flow and its sediment flow.
Question-8:
Here is a false statement. Identify the mistakes and rewrite them correctly.
In Gujarat, the Sabarmati basin farmers were agitated when higher priority was given to water supply in urban areas, particularly during droughts.

Solution:
In Gujarat, the Sabarmati basin farmers were not agitated when higher priority was given to water supply in urban areas, particularly during droughts.

Question-9:
Here is a false statement. Identify the mistakes and rewrite them correctly.
Today in Rajasthan, the practice of rooftop rainwater water harvesting has gained popularity despite high water availability due to the Rajasthan Canal.

Solution:
Today in Rajasthan, the practice of rooftop rainwater water harvesting has gained popularity despite low water availability due to the Rajasthan Canal.

Question-10:
Explain how water becomes a renewable resource.

Solution:
Three-fourth of the earth's surface is covered with water, but only a small proportion of it accounts for freshwater that can be put to use. This freshwater is mainly obtained from surface run off and ground water that is continually being renewed and recharged through the hydrological cycle. All water moves within the hydrological cycle ensuring that water is a renewable resource.

NCERT Solutions For Class 10 SST Chapter 3 Question-11
What is water scarcity and what are its main causes?

Solution:
Water scarcity is the shortage of water but it is not only associated with regions having low rainfall or those that are drought prone. The availability of water resources varies over space and time, mainly due to the variations in seasonal and annual precipitation, but water scarcity in most cases is caused by over- exploitation, excessive use and unequal access to water among different social groups.

NCERT Solutions For Class 10 SST Chapter 3 Question-12:
Compare the advantages and disadvantages of multi-purpose river projects.

Solution:
Regulating and damming of rivers affect their natural flow causing poor sediment flow and excessive sedimentation at the bottom of the reservoir, resulting in rockier streambeds and poorer habitats for the rivers' aquatic life. Dams also fragment rivers making it difficult for aquatic fauna to migrate, especially for spawning. It has great ecological consequences like salinisation of the soil. At the same time, it has transformed the social landscape i.e. increasing the social gap between the richer landowners and the landless poor.
The dams that were constructed to control floods have triggered floods due to sedimentation in the reservoir. Moreover, the big dams have mostly been unsuccessful in controlling floods at the time of excessive rainfall.
It was also observed that the multi-purpose projects induced earthquakes, caused waterborne diseases and pests and pollution resulting from excessive use of water.

NCERT Solutions For Class 10 SST Chapter 3 Question-13:
Discuss how rainwater harvesting in semi-arid regions of Rajasthan is carried out.

Solution:
In the semi-arid and arid regions of Rajasthan, particularly in Bikaner, Phalodi and Barmer, almost all the houses traditionally had underground tanks or tankas for storing drinking water. The tanks could be as large as a big room. The tankas were part of the well-developed rooftop rainwater harvesting system and were built inside the main house or the courtyard. They were connected to the sloping roofs of the houses through a pipe. Rain falling on the rooftops would travel down the pipe and was stored in these underground 'tankas'. The first spell of rain was usually not collected, as this would clean the roofs and the pipes. The rainwater from the subsequent showers was then collected. The rainwater can be stored in the tankas till the next rainfall making it an extremely reliable source of drinking water when all other sources are dried up, particularly in the summers. Rainwater, or

palar pani, as commonly referred to in these parts, is considered the purest form of natural water. Many houses constructed underground rooms adjoining the 'tanka' to beat the summer heat as it would keep the room cool.

NCERT Solutions For Class 10 SST Chapter 3 Question-14

Describe how modern adaptations of traditional rainwater harvesting methods are being carried out to conserve and store water.

Solution:

Fortunately, in many parts of rural and urban India, rooftop rainwater harvesting is being successfully adapted to store and conserve water. In Gendathur, a remote backward village in Mysore, Karnataka, villagers have installed, in their household's rooftop, rainwater-harvesting system to meet their water needs. Nearly 200 households have installed this system and the village has earned the rare distinction of being rich in rainwater. Rainwater harvesting is once again being conserved through modern adaptation. Rainwater running down from the roofs is not fed into drains. Instead it is piped into underground reservoirs.

Q.1. How have the growing population, industrialisation and urbanisation led to water scarcity ? Explain. [CBSE 2008 (D)]
Or
Explain any four reasons responsible for water scarcity in India. [CBSE 2010(D), Sept. 2012]
Or
How have industrialisation and urbanisation aggravated water scarcity in India ? [CBSE Sept. 2010, 14]
Or
Give three reasons for water scarcity in post independent India. [CBSE Sept. 2010]
Or
'Three-fourths of the earth's surface is covered with water but there is still scarcity of water across the globe.' Explain giving three reasons. [CBSE 2011]

Ans. (i) Growing population : Growing population is one of the basic factors which is responsible for the scarcity of water. Most of our cities are facing this problem due to overpopulation. A large population means more water not only for domestic use but also to produce more food.
(ii) Commercialisation of agriculture : After the success of Green Revolution, our farmers are producing commercial crops. The commercial crops need more water and other inputs. Assured means of irrigation like tube wells and wells are responsible for the falling groundwater levels.
(iii) Industrialisation : The post independent India witnessed intensive industrialisation and urbanisation. Today, large industrial houses are common in the form of industrial units of many MNCs (Multinational Corporations). The ever increasing number of industries has made matters worse by exerting pressure on the existing freshwater resources. Industries, apart from being heavy users of water, also require power to run them. Much of this energy comes from the hydroelectric power.
(iv) Urbanisation : Urbanisation has also aggravated the problem of water scarcity. Most of our cities are overpopulated. Overpopulation leads to over- utilisation of the water resources, and also pollutes the existing resources.

Q.2. How do the multipurpose river projects affect the aquatic life ? Explain.
Or
Explain the ecological problems being faced due to the multi-purpose river projects. [CBSE 2013]

Ans. In recent years, the multi-purpose projects and large dams have come under great scrutiny and opposition for a variety of reasons :

(i) Regulating and damming of rivers affect their natural flow causing poor sediment flow and excessive sedimentation at the bottom of the reservoir, resulting in rockier streambeds and poorer habitats for the rivers, as well as the aquatic life.
(ii) Dams also fragment rivers making it difficult for the aquatic fauna to migrate, especially for spawning.
(iii) The reservoirs that are created on the flood. Plains also submerge the existing vegetation and soil leading to its decomposition over time.
(iv) Irrigation has also changed the cropping pattern of many regions with farmers shifting to water intensive and commercial crops. This has great ecological consequences like salinisation of the soil.

Q.3. Explain the quantitative and qualitative aspects of water scarcity.
Or
Water is available in abundance in India even then scarcity of water is experienced in major parts of the country. Explain with four examples. [CBSE 2008 (D)]
Ans. (i) Quantitative aspect : This aspect is related to the availability of water resources. The availability of water resources varies over space and time mainly due to variations in seasonal and annual precipitation. However, water scarcity in most cases is caused by over-exploitation, excessive use and unequal access to water among different social groups.
(ii) Qualitative aspect : Now, let us consider another situation where water is sufficiently available to meet the needs of the people, but, the area still suffers from water scarcity. This scarcity may be due to bad quality of water. Lately, there has been a growing concern that even if there is ample water to meet the needs of the people, much of it may be polluted by domestic and industrial wastes, chemicals, pesticides and fertilizers used in agriculture, thus, making it hazardous for human use.

Q.4. Why is there an urgent need to conserve and manage our water resources ? Mention three reasons. [CBSE 2012]
Or
Why is it necessary to conserve water resources in India ? Explain.
Or
Why is it essential to conserve, and manage our water resources ? Explain any three reasons. [CBSE 2012]
Or
Why we should conserve our water resources ? Explain any three reasons. [CBSE 2012,2014]
Ans. (i) Precondition for life : Water is necessary for life on earth. It is believed that life originated in water before it invaded land. Water is in fact a precondition of life.
(ii) Water essential for crops: Cultivation of crops depends on the availability of water. Water dissolves minerals and other nutrients in the ground. The roots of the plants draw this nutritious water for the soil. India is an agricultural country so availability of water is a must.
(iii) Water and industries : Industries need water as coolant, solvent, raw material, etc.
(iv) Water for daily life : Water is also used for drinking and domestic consumption. The growing urbanisation with its modern lifestyle has been demanding greater share of water day by day.
(v) Water an important component of ecosystem : Conservation of water is also important to prevent degradation of our natural ecosystems.
(vi) Water scarcity : It is essential to conserve and manage water because its overuse and misuse has lead to water scarcity.

Q.5. Examine the importance of the river valley projects in the development of hydel power and irrigational facilities in India.
Or

Give any four objectives of the multipurpose river valley projects. [CBSE Sept. 2011]
Ans. (i) Generation of Power (electricity) :
These multipurpose projects are the main source of power generation. According to the Economic Survey, 2013, these produce more than 39,788.40 MW power. They provide us neat, pollution free and cheapest energy which is the backbone of industry and agriculture.
(ii) Flood Control : These projects control the floods because water can be stored in them. These projects have converted many 'rivers of sorrows' into 'rivers of boon'. For example, the river Kosi.
(iii) Soil Conservation : They help to conserve the soil because they slow down the speed of water.
(iv) Irrigation : These projects are the main source of irrigation for our country. These irrigate the fields during the dry seasons. Many perennial canals have been dug and they irrigate dry areas.

Q.6. "In recent years, the multipurpose projects and large dams have come under great scrutiny." Give reasons. [CBSE Sept. 2012]
Or
Mention any four disadvantages of multi purpose projects. [CBSE Sept. 2010, 2013]
Or .
How may the multipurpose river valley projects become harmful for the country ? Explain with four examples. [CBSE 2008]
Or
Why are multipurpose projects facing resistance ? Explain with three reasons. [CB$ESept.2010]
Ans. (i) Adverse effect on the fertility of the soil : Due to the construction of dams, there are no annual floods in the river. And
because of this, the soil of the downstream region does not get nutrient rich "silt". This decreases the fertility of the soil.
(ii) Adverse impact on aquatic life: Due to the construction of dams on the rivers, the fish in the downstream area do not get sufficient nutrient material. Regulating and damming of rivers affect the natural flow of water causing poor sediment flow downward, and excessive sedimentation at the bottom of reservoir, resulting in rockier stream beds and poorer habitats for the rivers aquatic life. Dams also fragment rivers making it difficult for aquatic fauna to migrate for spawning i.e., to produce eggs.
(iii) Displacement of local communities : The building of large dams results in displacement of local communities. The local people often have to give up their land and livelihood and their meagre access and control over resources for the greater food of the nation.
(iv) Change in the cropping pattern : The multipurpose projects are responsible for providing assured means of irrigation to farmers. Due to this, most of the farmers have changed the cropping pattern shifting to water intensive and commercial crops. This has led to salinisation of soil leading to ecological imbalance.

Water Resources SAQ Geography CBSE Class 10

Q.1. What is hydrological cycle? What is its importance ?
Ans. The continuous movement of water on, above and below the surface of earth is known as hydrological cycle. The freshwater is mainly obtained from surface run off and ground water that is continually being renewed and recharged through the hydrological cycle. All water moves within the hydrological cycle Q.5. ensuring that water is a renewable resource.

Q.2. How has agriculture aggravated the problem of water scarcity in India ? Explain. [CBSE 2014]
Ans. (i) Water is a basic input in agriculture. It is used for irrigation.
(ii) HYV seeds needs more water as compared to traditional seeds.
(iii) Commercialisation of agriculture has also lead to withdrawal of groundwater at a large scale.
(iv) Overuse of groundwater is another problem associated with agriculture. The water table has lowered in many parts of India due to its overuse.

Q.3. "Water scarcity may be an outcome of large and growing population". Justify.
Ans. (i) A large population means more water not only for domestic use but also to produce more food.
(ii) Most of the Indian cities are facing the
problem of water due to growing population. .
(iii) A growing population has also a direct impact on the water level.

Q.4. How does urbanisation and urban lifestyle lead to over-exploitation of water resources ? Explain. [CBSE 2013]
Ans. (i) Most of our cities are over populated.
Overpopulation leads to our utilisation of water resources.
(ii) Urbanisation especially unplanned urbanisation adds to water pollution.
(iii) Urbanisation also damages the existing water resources especially the river. For example, most of Indian river have been polluted by the waste of cities.

Q.5.Is it possible that an area or region may have ample water resources but is still facing water scarcity ? Explain with the help of three relevant examples. [CBSE 2013]
Ans. Yes it is possible that an area or region may have ample water resources but is still facing water scarcity. Most of our cities are facing this proble.
(i) In most of our cities there is no shortage of water but the water is unfit for consumption.
(ii) Most of our cities are in the banks of rivers, but rivers have been turned into toxic streams.
(iii) The ever increasing population, industries and vehicles has made matter worse by exerting pressure on existing freshwater resources.

Q.6. What is importance of water ? [CBSE 2012]
Or
"Water is a very important and critical resource in India." Support the statement by explaining any three points. [CBSE 2013]
Ans. (i) Water is vital for human survival.
(ii) Water is used for transportation.
(iii) In industries water is used as a coolant.
(iv) Water is also used for power production.
(v) Water is a basic input for agriculture.

Q.7. How do increasing number of industries exert pressure on existing freshwater resources ? [CBSE 2012]
Ans. (i) industries used water as coolant, raw material, solvent, etc.
(ii) Industries release harmful chemicals which contaminates water.
(iii) Most of the Indian rivers are polluted due to toxic chemicals which are released by industries.

Q.8. What are dams? How do these help to conserve and manage water ?
Ans. A dam is a barrier across flowing water that obstructs, directs or retards the flow often creating a

reservoir, lake or impoundment.
(i) Dams were traditionally built to impound rivers and rainwater that could be used later to irrigate agricultural fields.
(ii) Dams are also source of perennial canals.

Q.9.Distinguish between a dam and a multipurpose project.

Q.9. Distinguish between a dam and a multipurpose project.

Ans.

Dam	Multipurpose project
1. A dam is barrier across the flowing water that obstructs, dissects or retards the flow, often creating a reservoir, lake or an impoundment.	1. A multipurpose project is that which fulfils a variety of purposes at the same time, for example – irrigation, generation of electricity, flood control, fish breeding, soil conservation, etc.
2. It is a traditional concept.	2. It is a modern concept.

Q.10.Who proclaimed the dams as the temples of modern India ? Give reason.
Ans. Jawaharlal Nehru proudly proclaimed the dams as the 'temples of modem India'; the reason being that it would integrate development of agriculture and the village economy with rapid industrialisation and growth of the urban economy.

Q.11.'Multipurpose projects and large dams have also been the cause of many social movement'. Name any two such movements. Why these movements were launched ?
Ans. Multipurpose projects and large dams have also been the cause of many new social movements like the 'Narmada Bachao Andolan' and 'Tehri Dam Andolan' etc. Resistance to these projects has primarily been due to the large – scale displacement of local communities. Local people often had to give up their land, livelihood and their meagre access and control over resources for the greater good of the nation.

Q.12. How do the dams create conflicts between the people ?

Ans. (i) The dams have created conflicts between people wanting different uses and benefits from the same water resources.
(ii) Inter-state water disputes are becoming common with regard to sharing the costs and benefits of the Projects.
(iii) The landowners, the rich farmers, industrialists and urban centres are benefitting at the cost of local communities.
In Gujarat, the Sabarmati – basin farmers were agitated and almost caused a riot over the higher priority given to water supply in urban areas, particularly during droughts. Inter – state water disputes are also becoming common with regard to sharing the costs and benefits of the multipurpose project.

Q.13. How has irrigation changed the cropping pattern? What is its impact on the social landscape ? [CBSE Sep 2012]

Ans. Due to irrigation facilities many farmers have shifted to water intensive and commercial crops. For example, Punjab has become major producer of rice inspite of low rainfall.
Impact on social landscape:- This transformation has widens the gap between rich and poor. The rich and mighty who can afford higher inputs has become more rich whereas the poor have failed to get benefit due to lack of capital.

Q.14. Explain three ways in which irrigation schemes have changed the social landscape of the region. [CBSE 2012]

Ans. (i) Displacement of the local people : Local people often had to give up their land, livelihood and their meagre access and control over resources for the greater good of the nation.
(ii) Social movements : Multipurpose projects and large dams have also been the cause of many new social movements like the 'Narmada Bachao Andolan' and the 'Tehri Dam Andolan', etc.
(iii) Widening the gap between rich and poor : Multipurpose projects have widened the gap between rich and poor. The landlords, large farmers and industrialist are getting benefit at the cost of poor.

Q.15. "Multipurpose projects have failed to achieve the purpose for which they were built". Justify by giving reasons. [CBSE 2014]

Ans. (i) These dams were constructed to control floods but they have triggered floods due to sedimentation in the reservoir.
(ii) Moreover, the big dams have mostly been unsuccessful in controlling floods at the time of excessive rainfall.
(iii) Many a time authorities are forced to release water from dams during heavy rainfall.

Q.16. What is rainwater harvesting ? What is its importance ?

Ans. It is a technique of increasing the recharge of ground water by capturing and storing rainwater by constructing structures such as percolating pits, check dams, etc.
Importance:-
(i) Rainwater harvesting is the need of hour as demand for water is increasing day by day.
(ii) Rainwater harvesting reduces pressure on existing water resources.
(iii) It is cheap source of water supply.
(iv) It helps in recharging groundwater.
(v) The rainwater store is extremely reliable source of drinking water when all other sources are dried up.

Q.17. (f) What is a multipurpose project ? [CBSE 2009 (D) ; Sept. 2010, 11]
(ii) Why did Pandit Jawahar Lai Nehru proclaim the river dams as the 'Temples of Modem India?' Explain the main reason. [CBSE 2014]
Ans. (i) A multipurpose project is that which fulfils a variety of purposes at the same time, for example – irrigation, generation of electricity, flood control, fish breeding, soil conservation, etc.
(ii) It would integrate development of agriculture and the village economy with rapid industrialisation and the growth of urban economy.

Q-18. Explain the rooftop rainwater harvesting technique.
Ans. (i) Rooftop rainwater is collected using a PVC pipe.
(ii) Collected water is filtered using sand and bricks.
(iii) Underground pipe is used to take the water to the sump for immediate usage.
(iv) Excess water from the sump is taken to the well.
(v) Water from the well recharges the underground water.

Q.19. Why are different water harvesting systems considered a viable alternative both socio economically and environmentally in a country like India ? [CBSE Sept. 2010, 2011]
Ans. (i) Water harvesting is a very cheap and affordable method of conservation of water.
(ii) Indian people have in-depth knowledge of rainfall regime and soil type. They have developed techniques to harvest rainwater, groundwater, rain water and flood water in keeping with the local ecological conditions and their water needs.
(iii) Rainwater harvesting techniques are more environmental friendly as compare to multipurpose river projects.

Q.1. How is freshwater obtained ?
Ans. The freshwater is obtained from precipitation, surface run off and groundwater that is continually being renewed and recharged through the hydrological cycle.

Q.2. What is hydrological cycle ?
Ans. The continuous movement of water on, above and below the surface of earth.

Q.3. What is the importance of hydrological cycle ?
Ans. The freshwater is mainly obtained from surface run off and groundwater that is continually being renewed and recharged through the hydrological cycle. All water moves within the hydrological cycle ensuring that .water is renewable resource. .

Q.4. What is water scarcity ? [CBSE 2014]
Ans. Water scarcity is the lack of sufficient available water resources to meet the demand.

Q.5. "The availability of water resources varies over space and time". Give reasons.
Ans. Water resources varies over space and time due to the variation in seasonal and annual precipitation.

Q-6. What percentage of the total volume of world's water is estimated to exist as oceans ?
Ans. 96.5%

Q.7. How much per cent of the total volume of world's water is estimated to exist as fresh water ?
Ans. 2.5

Q.8. What are the sources of fresh water?
Ans. Precipitation, surface run off and groundwater.

Q.9. How is freshwater being renewed ?
Ans. The freshwater is being renewed through the hydrological cycle.

Q.10. Mention any two regions which are expected to face water shortage.
Ans. (i) Regions having low rainfall
(ii) Regions which are drought prone.

Q.11. What is a dam ?
Ans. 'A dam' is a barrier across the flowing water that obstructs dissects or retards the flow, often creating a reservoir, lake or impoundment.

Q.12. What is a multipurpose project ?
Ans. A multipurpose project is that which fulfils a . variety of purposes at the same time, for example – irrigation, generation of electricity, flood control, fish breeding, soil conservation etc.

Q.13. Who proclaimed dams as the temples of modem India ?
Ans. Jawaharlal Nehru.

Q.14. Why were the multipurpose river projects considered as temples of modem India by Jawaharlal Nehru ?
Ans. These would integrate development of agriculture and the village economy with rapid industrialisation and growth of the urban economy.

Q.15. Name any two social movements which have been launched against the multipurpose projects.
Ans. Narmada Bachao Andolan and 'Tehri Dam' Andolan.

Q.16. What was considered as a viable alternative to the multipurpose projects and why ? [CBSE 2013]
Ans. The. disadvantages and rising resistance against the multipurpose projects, has lead us to conclude that water harvesting system is a viable alternative, both socio-economically and environmentally.

Q.17. Irrigation has changed the cropping pattern of many regions with farmers shifting to water intensive and commercial crops". Mention its ecological consequence.
Ans. Salinisation of the soil

Q.18. What was the primary reason for launching 'Narmada Bachao Andolan' ?
Ans. Narmada Bachao Andolan was launched due to the large scale displacement of local communities.

Q.19. What is silt ?
Ans. A fine soil which is formed in flood plains.

Q.20. How people used to conserve or harvest water in hills and mountainous regions ?
Ans. By building diversion channels like the 'guts' or 'kuls'.

Q.21. How people used to harvest water in the flood plains of Bengal ?
Ans. By building inundation channels to irrigate their fields.

Q.22. How people harvest water in the semi- arid and arid regions of Rajasthan ?
Ans. By building underground tanks.

Q.23. Many people of arid and semi-arid regions construct under-ground rooms adjoining the water tanks. Give reason.
Ans. By beating the summer heat it would keep the room cool.

Q.24. Name two techniques of roof top rain water harvesting. [CBSE 2009(0)]
Ans. (i) Recharge through hand pump.
(ii) Recharge through abandoned dug well.

Q.25. Name any two states where roof top water harvesting is most common.
Ans. Meghalaya and Rajasthan.

Q.26. Define the term Tankas. [CBSE 2008 (F)]
Ans. Tankas are the underground tanks for storing drinking water.

Q.27. Which is the purest form of natural water ?
Ans. Rainwater

Q.28. What is Kul ?
Ans. It is a circular village tank from which water is released and taken when required.

Q.29. Name any two states which are involved in Krishna-Godavari-dispute.
Ans. Karanataka and Andhra Pradesh.

Q.30. Name the river on which the Hirakud dam is located. [CBSE 2013]
Ans. Mahanadi

Q.31. Name the river on which the Mettur dam is located.
Ans. Kaveri

Q.32. Name the river on which the Nagarjuna Sagar dam is located.
Arts. Tungabhadra

Q.33. Name the river on which the Rihand dam is located.
Ans. Son

Q.34. Name the river on which the Bhakra Nangal dam is located. [CBSE 2014]
Ans. Satluj

Q.35. Name the river on which the Koyna dam is located ?
Ans. Krishana

Q.36. Name the river on which the Sardar Sarovar dam is located.
Ans. Narmada

Q.37. What is the contribution of hydroelectricity in the total generation of electricity.
Ans. 22%

Q.1. Write the features of the 'tankas' built in the houses of Bikaner, Phalodi and Banner. [CBSE 2013]
Ans. (i) The tanks could be as large as a big room;
one household in Phalodi had a tank that was 6.1 meters deep, 4.27 meters long and 2.44 meters wide.
(ii) The tankas were part of the well-developed rooftop rainwater harvesting system and were built inside the main house or the courtyard.
(iii) They were connected to the sloping roofs of the houses through a pipe.
(itv) Rain falling on the rooftops would travel down the pipe and was stored in these underground tankas.
(v) The first spell of rain was usually not collected as this would clean the roofs and the pipes. The rainwater from the subsequent showers was then collected.

Q.2. Explain the term 'tankas'. Where were tankas built in India ? [CBSE 2013]
Ans. (i) The tankas were part of the well-developed rooftop rainwater harvesting system and were built inside the main house or the courtyard. They are built for storing drinking water. A tank could be 6.1 meters deep, 4.27 meters long and 2.44 meters wide.
(ii) The tankas were built in the semi-arid and arid regions of Rajasthan, particularly in Bikaner, Phalodi and Barmer.

Q.3. What is bamboo drip irrigation ? Mention any two features of it. [CBSE 2012]
Ans. (1) (i) About 18-20 liters of water enters the bamboo pipe system, get transported over hundreds of meters and finally reduces to 20-80 drops per minute at the site of the plant.
(ii) Bamboo drip irrigation system is practiced in Meghalaya.
(2) Features of bamboo drip irrigation ;
(i) Bamboo drip irrigation system is 200 year old system of tapping stream and stripwater by using bamboo pipe.
(ii) Bamboo pipes are used to divert perennial springs on the hilltops to the lower reaches by gravity.
(iii) The channel sections, made of bamboo, divert water to the plant site where it is distributed into branches.

Q.4. What role do "Guls" or "Kuls" of the Western Himalayas and "Khadin" and "Johads" in parts of Rajasthan play ? Describe. [CBSE 2012]
Ans. (i) In Western Himalayas people build diversion channels like 'guls' or 'kuls'.
(ii) In arid and semi-arid regions, agricultural fields were converted into rain-fed storage structures.
(iii) These allowed the water to stand and moisten the soil like the 'Khadins' in Jaisalmer and 'Johads' in other parts of Rajasthan.

Water Resources VBQ CBSE Geography Class 10

Q.1. "Need of the hour is to conserve and manage our water resources." Mention any four reasons. Suggest any two ways to conserve water. [CBSE Sept. 2012]
Ans. (i) To safeguard ourselves from health hazards.
(ii) To ensure food security.
(iii) To prevent degradation of our natural ecosystem.
(iv) To save the future generations from water crisis.
Suggestions : –
(i) Turn off the tap while brushing.
(ii) We should spread awareness regarding water conservation.
(iii) Rainwater harvesting.

Q.2. How is industrialisation responsible for water scarcity? Explain. Suggest any two ways to check water pollution.
Ans. (i) The ever increasing number of industries has made matter worse by exerting pressure on the existing freshwater resources.
(ii) Industries need power which is produced from water. The power is produced by the multipurpose projects.
(iii) Chemicals and gases released by industries also pollutes the water.
Suggestions :
(i) Minimising use of soaps and detergents.
(ii) Minimising use of fertilizers.

Q.3. What is water scarcity? Mention any four factors responsible for water scarcity. [CBSE 2014]
Or
What is meant by water scarcity and give any two causes of water scarcity ?
Ans. Shortage of water as compared to its demand is known as water scarcity.
Factors responsible :
(i) Overexploitation of water sources.
(ii) Improper management.
(iii) Unequal access of water among different social groups.
(iv) Industrialisation and urbanisation.

Q.4. "Overpopulation or large and growing population can lead to water scarcity." Explain. Mention any two lessons which you have learnt from this.
Ans. Overpopulation or large and growing population can lead to water scarcity as :
(i) More population means more demand for water.
(ii) A large population means more water not only for domestic use but also to produce more food.
(iii) To facilitate higher foodgrain production, water resources are being over exploited to expand the irrigated areas and the dry season agriculture.
(iv) Overutilisation of water results in lowering of the groundwater levels.
Lessons :
(i) There is need to check the growth of population.
(ii) Human beings need to care for nature.

Q.5. 'Large multipurpose projects also lead to land degradation.' Explain.
Ans. Multipurpose projects lead to land degradation because :
(i) Irrigation has changed the cropping pattern of many regions with farmers shifting to water intensive crops. This has led to the salinisation of the soil.
(ii) Regulating and damming of rivers affect the natural flow of rivers causing poor sediment flow.

(iii) The flood plains are deprived of silt.
(iv) Multipurpose projects induce pollution which leads to land degradation.

Q.6. Explain various problems associated with poor people due to construction of large dams. [CBSE 2013]
Ans. (i) Construction of large dams leads to the large-scale displacement of the local communities.
(ii) Local people have to give up their land and livelihood.
(ii) Pbor people lose meagre access and control over resources for the greater good of the nation.
(iv) The displaced people do not get full rehabilitation facilities from the government,
(v) The landless people have to work as labourers in factories or construction sites. Their lives become miserable.

Q.7. Name any two movements that have been started to oppose multipurpose projects. Who are benefitted from such projects ? [CBSE 2013]
Ans. (1) Two movements that have been started to oppose multipurpose projects are :
(i) Narmada Bachao Andolan was started against the Sardar Sarovar Dam being built across the Narmada river in Gujarat.
(ii) Tehri Dam Andolan – Resistance to these projects has primarily been due to the large-scale displacement of local communities.
(2) The landowners and large farmers, industrialists and a few urban centers are benefitted from such projects.

Q.8. Why is rooftop rainwater harvesting important in Rajasthan ? Explain. [CBSE 2013, 14]
Ans. (i) The rainwater stored in tankas is an extremely reliable source of drinking water when all other sources are dried up.
(ii) Rainwater is considered the purest form of natural water.
(iii) Many houses constructed underground rooms adjoining the tanka to beat the summer heat as it would keep the room cool.
(iv) There is lack of perennial rivers in Rajasthan.
(v) The rainfall is not reliable in this region.

notes

♦ **Dam:** A barrier across the flowing water.

♦ **Flora:** Plants of a particular region or period are referred to as flora.

♦ **Fauna:** Species of animals are known as fauna.

♦ **Forest:** Extensive area covered with trees.

♦ **Groundwater:** Water which is obtained from a depth of more than 15 metres is known as groundwater.

♦ **Hydroelectricity:** It is the power which is generated with the help of running water.

♦ **Multipurpose project:** A River valley project which serves a number of purposes simultaneously such as irrigation, flood control and generates hydroelectricity, e.g. the Bhakra Nangal.

♦ **Perennial canals:** Canals developed by diverting water from rivers that flow throughout the year.

♦ **Soil:** The upper layer of the ground containing weathered rocks and humus.

♦ **Water scarcity:** Shortage of water as compared to its demand is known as water scarcity.

♦ **Rainwater harvesting:** It is a technique of increasing the recharge of groundwater by capturing and storing rainwater, by constructing structures such as percolating pits, check dams, etc.

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Question-1
What is the importance of agriculture in Indian economy?
Solution:
a. India is an agricultural country.
b. Nearly two-thirds of its population depends directly on agriculture for its livelihood.
c. Agriculture is the main stay of India's economy.
d. It accounts for 26% of the gross domestic product.
e. It ensures food security for the country and produces several raw materials for industries.
f. Agricultural development is therefore, a precondition of our national prosperity.
Question-2
Name three features of Indian agriculture.
Solution:
a. Farmers own small piece of land and grow crops primarily for their own consumption.
b. Animals play a significant role in the various kinds of agricultural activities.
c. Farmers depend mainly upon monsoon rains.
Question-3
What is plantation agriculture?
Solution:
a. Plantation farming is bush or tree farming
b. The British introduced it in the nineteenth century.
c. It is a single crop farming of rubber, tea, coffee, cocoa, spices, coconut and fruits like apples, grapes, oranges etc.
d. It is capital intensive and demands good managerial ability, technical know-how, sophisticated machinery, fertilizers, irrigation and transport facilities.
e. Some of the plantations like tea, coffee, rubber have a processing factory within the farm itself or close to it.

f. This type of agriculture has developed in hilly areas of north- eastern India, sub-Himalayan, West Bengal and in Nilgiri, Anamalai and Cardamom hills in peninsular India.

Question-4

Name three important wheat-producing states of India.

Solution:

The main wheat producing states are U.P, Haryana, Bihar,and Punjab.

Question-5

Name three sugarcane-producing states of the country.

Solution:

The major sugarcane producing states are Uttar Pradesh, Maharashtra, Karnataka and Andhra Pradesh.

Question-6

Mention three spice-producing states of India.

Solution:

Spice producing areas in India are Kerala, Karnataka, and Tamil Nadu.

Question-7

Name three tobacco-producing states of India.

Solution:

Tobacco producing states are Gujarat, Uttar Pradesh, Andhra Pradesh and Karnataka.

Question-8

Distinguish between: Rabi and Kharif Crops.

Solution:

Rabi and Kharif crops

Kharif:

1. Cultivation begins with the on set of monsoons in May.
2. Sowing of seeds is done in June or early July.
3. Crops are harvested in September- October.
4. Crops depend on the monsoons.
5. Types: Rice, millets, maize, groundnuts, jute, cotton and various pulses.

Rabi

1 Cultivation begins with the withdrawal of monsoons in October.
2. Sowing of seeds is done in October- November.
3. Crops are harvested in April-May.
4. Crops depend on the sub-soil moisture.
5. Types : Wheat, gram and oil-seeds like mustard and rape- seeds

Question-9:

Distinguish Between Dry and Wet Agriculture.

Solution:

Dry and Wet Agriculture

Dry Agriculture:

Dry farming is a type of farming in which moisture is maintained by raising special type of crops.
Crops such as gram and peas are grown.
There is vast dependence on irrigation.
This is practiced in dry areas of the country

Wet Agriculture:

Wet farming is a type of farming, which depends mainly upon rains.
In this type of farming rice, jute and maize are grown.
There is no irrigation required.
This type of farming is done in Northeastern parts of India.

Question-10

Distinguish between Tea and Coffee Cultivation.

Solution:

Tea and Coffee Cultivation	
Tea	Coffee
It requires warm and moist-free climate	It requires hot and humid climate
The British introduced it.	The Arabic variety was brought from Yemen.
It requires 20°C to 30°C temperatures.	It requires 15°C to 28°C temperature.
It requires 300 cm rainfall.	It requires 200 cm rainfall.
It is grown in Assam, West Bengal, Tamil Nadu and Kerala.	It is grown on hills around Nilgiris, Karnataka, Kerala, and Tamil Nadu.

Question-11

Describe various technological and institutional reforms, which led to Green and White revolutions in India.

Solution:

The various technological and institutional reforms consist of various measures taken by the Central and State governments from time to time. Flooding of fields with water is now being replaced by drip irrigation and the use of sprinklers. Chemical fertilizers are being used on a large scale, to increase the farm yields. Bio- fertilisers are now supplementing them. High yielding and early maturing quality seeds have been developed. Most of these technology inputs gave birth to Green Revolution in sixties and seventies of twentieth century. White Revolution followed the Green Revolution.

Question-12

What is the importance of animal husbandry in India?

Solution:

Farm animals form an important ecosystem in an agriculture country like India. Farm animals are the partners of the farmers. Ox, he- buffalo and camel are used as drought animals in performing activities like ploughing, sowing, thrashing and transporting farm products. Cows and she- buffalo provide them milk.

Question-13

Describe the distribution of rice cultivation in India.

Solution:

Rice is one of the major food crop in India. India is second largest producer of rice in the world after China. It is grown on about one fourth of the total cropped area and provides food to about half of the country's population. Rice is a tropical plant. It requires high temperature of about 24°C with minor variation during sowing and harvesting. It requires 100cm of rain. It is grown in Punjab, Haryana and Western Uttar Pradesh, Andhra Pradesh, Orissa, western and eastern coastal strips, Brahmaputra valley and Jammu and Kashmir.

Question-14

How is it possible to grow rice in areas of less rain, like Punjab, Haryana and Rajasthan?

Solution:

Development of canal irrigation and tube wells have made possible to grow rice in Punjab, Haryana and Rajasthan.

Question-15:

Mention some industries based on agricultural raw materials.

Solution:

Tea, coffee, sugar and cotton industries.

Question-16:
What is the the PDS programme of the government of India?
Solution:
It is a programme that, provides food grains and other essential commodities at subsidized process in rural and urban areas.
Question-17
Mention one reason for big zamindars to offer Bhvadonar Goarrdan.
Solution:
Many offered due to the fear of land ceiling act.
Question-18
Name the movements started by Vinoba Bhave, known as Blood-less revolution?
Solution:
The Bhoodan – Gramdan movements started by Vinoba Bhave are known as Blood – less revolution.
Question-19
What are the 2 important beverage crops of India?
Solution:
They are coffee and tea.
Question-20
Solution:
In shifting agriculture a piece of land is cleared, crops are grown and the patch is deserted when it loses its fertility in order to regain its fertility.
Question-21
Solution:
Agriculture for the production of tropical and sub-tropical crops, like bananas, coffee, cocoa, tea, cotton, palm oil, rubber, spices, sugar and sisal. Is called plantation agriculture.
Question-22
Solution:
The area, which is actually under the cultivation and crops.
Question-23
Solution:
Agriculture with a high level of inputs, capital and labour and high yields.
Question-24
What is gross cultivated area?
Solution:
The total area on which crops are grown. It includes the area on which crops are not raised for 1 to 2 seasons.
Question-25
Define dry land farming?
Solution:
Farming without irrigation, using techniques, which conserve water for the crops.
Question-26
Define agricultural resources?
Solution:
Gifts of nature that include fertile soils, water for irrigation favorable climatic conditions for the growth of plants.
Question-27
Which are the states in India which are famous for commercial farming?
(A) Punjab and Haryana
(B) Orissa and West Bengal
(C) Rajasthan

(D) Himachal Pradesh
Solution:
(A) Punjab and Haryana.
Question-28
Which is helpful in inventing new hybrid varieties of seeds?
(A) Green Revolution
(B) White Revolution
(C) Genetic Engineering
(D) Scientific Research
Solution:
(C) Genetic Engineering .
Question-29
Which industry is based on agricultural raw material?
(A) Food-processing Industry
(B) Marine Industry
(C) Sericulture
(D) Pisiculture
Solution:
(A) Food-processing Industry.
Question-30
Which is not associated with primitive subsistence farming?
(A) Natural fertility of soil
(B) Monsoon
(C) High yield crops or seeds
(D) Involvement of family members
Solution:
(C) High yield crops or seeds.
Question-31
Match the following conditions with the different crops growth:Crop Ideal condition
A. Rice (i) Temperature- 25°C, Rainfall- 100 cm-200 cm.
B. Wheat (ii) Temperature- 20-25°C, Rainfall- 50 cm-75 cm
C. Maize (iii) Temperature- 21-27°C, Rainfall- 50 cm-75 cm
D. Pulses (iv) Temperature- 20-25°C, Rainfall- 50 cm-75 cm
(A) A-(iii), B-(iv), C-(i), D-(ii)
(B) A-(iii), B-(iv), C-(ii), D-(i)
(C) A-(i), B-(ii), C-(iii), D-(iv)
(D) A-(i), B-(ii), C-(iv), D-(iii)
Solution:
(C) A-(i), B-(ii), C-(iii), D-(iv)
Question-32
Which is a leguminous crop?
(A) Pulses
(B) Millets
(C) Jowar
(D) Sesamum
Solution:
(A) Pulses.
Question-33
Which is major pulse producing state in India?
(A) Kerala

(B) Goa
(C) Uttar Pradesh
(D) Punjab
Solution:
(C) Uttar Pradesh.
Question-34
Choose the correct answer
(A) A, C and D are correct
(B) C and D are correct
(C) B, C, and D are correct
(D) All are correct
Solution:
(A) A, C and D are correct.
Question-35
Which country produces more sugarcane than the India?
(A) Australia
(B) Cuba
(C) Brazil
(D) France
Solution:
(C) Brazil.
Question-36
Match the following crops with states in India: Crops States
(A) A-(i), B-(ii), C-(iii), D-(iv)
(B) A-(i), B-(iv), C-(iii), D-(ii)
(C) A-(i), B-(ii), C-(iv), D-(iii)
(D) A-(ii), B-(i), C-(iv), D-(iii)
Solution:
(B) A-(i), B-(iv), C-(iii), D-(ii).
Question-37
Which crop is grown in shifting cultivation?
(A) Maize
(B) Rice
(C) Wheat
(D) Millet
Solution:
(B) Rice.
Question-38
Which crop is grown in Zaid season?
(A) Rice
(B) Wheat
(C) Millets
(D) Cucumber
Solution:
(D) Cucumber.
Question-39
In which state is intensive subsistence farming largely practiced?
(A) Rajasthan
(B) Gujarat
(C) West Bengal

(D) Punjab

Question-40

What is a system of agriculture where a single crop is grown on a large area called?

(A) Shifting Agriculture
(B) Plantation Agriculture
(C) Horticulture
(D) Sericulture

Solution:

(B) Plantation Agriculture.

Question-41

Which are the states which have abundance of rice production?

(A) Punjab, Haryana
(B) Karnataka, Tamil Nadu
(C) Bengal, Bihar
(D) Gujarat, Maharashtra

Solution:

(C) Bengal, Bihar.

Question-42

Which is major producer of the maize in India?

(A) Bihar
(B) Punjab
(C) Haryana
(D) Himachal Pradesh

Solution:

(A) Bihar.

Question-43

Which one of the following institutions established by Government of India, helped in modernization of Agriculture?

(A) Krishidarshan
(B) Doordarshan
(C) Indian council of Agriculture
(D) Indian Institute of Agronomy

Solution:

(C) Indian council of Agriculture.

Question-44

Which system launched by government of India ensure subsidised prices for food grains to poor in rural areas?

(A) FCI
(B) Buffer Stock
(C) PDS
(D) FCD

Solution:

(C) PDS.

Question-45

Which type of farming is not harmful as compared to modern agriculture?

(A) Intensive farming
(B) Extensive farming
(C) Organic farming
(D) Genetic farming

Solution:

(C) Organic farming.

Question-46

Point out the five uses of jute. Why is it losing market?

Solution:

Uses – It is used in making gunny bags, mats robes, yarn, carpets and other artifacts.
Due to its high cost, it is losing market to synthetic fibres, which are much cheaper and are now used for packing materials, particularly nylon.

Question-47

What is the rank, India holds in cotton production in the world? Name the major cotton producing state of India.

Solution:

(1)India ranks third in the cotton production in the world.
(2)Major Cotton producing slates are :- Maharashtra, Gujrat, Madhya Pradesh, Karnataka, Andhra Pradesh, Tamil Nadu, Punjab, Haryana and Uttar Pradesh.

Question-48

What are the fibre crops of India and from where are there obtained?

Solution:

(1) The four major fibre crops of India are: – Cotton, jute, hemp and natural silk.
(2) Cotton, jute and hemp are derived from crops grown in the soil: Natural silk is obtained from the cocoons of silk worms fed on green leaves, especially mulberry.

Question-49

Which variety of Indian coffee is of great demand in the world and from where was it initially brought? Where was its cultivation initially?

Solution:

(1) The Arabic variety of Indian coffee is in great demand in the world.
(2) It was initially brought from Yemen and now produced in the country.
(3) Initially it was cultivated on Baba Budan hills.

Question-50

Give importance of groundnut as an oil seed? Name the largest groundnut producing states in India.

Solution:

(1)Groundnut accounts for about half of the major oil seeds produced in India.
(2)The largest producer of ground nut Is Andhra Pradesh. Other states are Tamil Nadu, Karnataka, Gujarat and Maharashtra.

Question-51

Give the main oil seeds grown in India. Point out 2 to 3 of their uses.

Solution:

The main oil seeds produced in India are groundnut, coconut, mustard, seamum, soya bean, castor seeds, cotton seeds, linseed and seen flower.
Uses – Most of these are edible and used in cooking. Some of them are used a raw material in the production of soap, cosmetics and ointments.

Question-52

Why are pulses usually grown in rotation with other crops? How is it important in our diet?

Solution:

All pulses except, arhar helps in soil fertility, by fixing nitrogen from the air, that is why they are mostly grown in rotation with other crops.
Role – They are a major source of protein in a vegetarian diet and India has more number of vegetarians. Also non vegetarian food is expensive and most of the Indians depend on vegetarian food.

Question-53

How is maize used? In which season is it grown? Describe briefly the soil, temperature required for

the production of maize. Name 4 major maize producing states of India.

Solution:

(1) It is used as food as well as fodder.
(2) It is a Kharif crop, but in some states, like Bihar, its grown in Rabi season.
(3) It requires temperature between 21. c to 27. c, grows well in alluvial soil.

Question-54

How will the change in the cropping pattern affect the Indian Economy?

Solution:

(1) Change in the cropping pattern, for example from cereals to high value-crops will mean that India will have to import food.
(2) If India imports cereals while exporting high value commodities, it will be following successful economies like Italy, Israel and Chile.

Question-55

Why is organic farming in vogue nowadays?

Solution:

(1) It is much in vogue today, because it is practiced without factory made chemicals, such as fertilizers and pesticides.
(2) Therefore it does not affect environment in a negative manner.

Question-56

Mention two reasons for the reduction of net sown area in our country.

Solution:

Using land for non-agricultural purposes like housing, raising factories etc has resulted in reduction in net sown area.

Question-57

The excessive use of fertilizers and water has affected the soil-Explain?

Solution:

Excessive use of fertilizers and water has led to: water logging, salinity and depletion of essential micro nutrients in the soil.

Question-58

Explain the term Food Corporation of India (FCI).

Solution:

The Food Corporation of India focuses and maintains stocks of food grains. It procures food grains from the farmers at the government announced minimum support price (MSP).

Question-59

What is the lack of food security?

Solution:

Food is the basic need of every living being. If any segment of our population does not have access to food, that segment suffers from lack of food security.

Question-60

Solution:

A term coined in late 1960's, recent developments in agriculture in our country which have led to considerable increase in agricultural yields in certain cereals, specially wheat as a result of new seeds, application of manures, and chemical fertilizers, assured water supply and use of machinery.

Question-61

Why is food Security is a big concern for the small farmers?

Solution:

(1) Free power to a certain section of farmers has encourage them to pump ground water and grow water intensive crops in low rain fall areas also (like rice in Punjab and sugarcane in Maharashtra). As a result water storage has reduced in aquifers tube wells and many wells has run dry, which has pushed small and marginal farmers out of cultivation.

(2) Inadequate storage and marketing facilities also discourage the small farmers. Thus they are badly affected by uncertainties of production and market.
(3) They pay high prices for inputs like H.Y.V seeds; fertilizers etc., but the bargaining power to fix prices in their favour, is very less
(4) All the production reaches the market simultaneously. The higher the supply, the lower the demand. Due to all the above given reason the food scarcity of small farmers is a big concern.

Question-62

Give four measures to increase agricultural production.

Solution:

(1) Each district and block can be made self sufficient in food grain production if government provides proper agricultural infrastructure that is availability of electricity, irrigation facilities, good roads, building etc.
(2) Providing loan facilities on lower interest to cultivator.
(3) Encouraging latest techniques in agricultural and instead of concentrating on rice or wheat, the food crop with a better growth potential in that particular area must be encouraged.
(4) Attract foreign investment in agriculture and also free trade in grains which will not only increase agricultural production but will also create massive employment and reduce poverty in rural areas.

Question-63

Mention the government of India's efforts to modernize agriculture.

Solution:

(1) Establishment of Indian council of Agricultural Research (ICAR), agricultural universities veterinary services and animal breeding centers.
(2) Horticulture development research and development in the field of metrology and weather forecast etc – have been given priority for improving India's agriculture.
(3) Improvement in the rural infrastructure, the basic system the country needs in order to work properly (i.e) transport, communication and banking system.
(4) Encouragement to the care of machines and chemical fertilizers, development of high yielding varieties of seeds.
(5) The government has launched various schemes to protect and save plants from pests and diseases.
(6) Development of various kinds of tools and implements like factors, harvesters, thrashers etc. have led to increased population and time, minimize chances of wastage, fire and rain destroying the grains lying in the few fields.

Question-64

Give the main objectives of food security policy of government of India. What is the role of FCI?

Solution:

(1) The primary objective of India's food security policy is to ensure availability of food grains to the common people at affordable price.
(2) The forces of the Policy is on growth in agricultural production and on fixing the support price of wheat and rice.
(3) To maintain the stocks of wheat, rice and other food grains
Organizations the FCI that is food Corporation of India is responsible for procuring and stocking food grain whereas the distribution is ensured by public distribution.

Question-65

What factors have hindered the pace of agricultural development in India?

Solution:

(1) Inspite of development of source of irrigation, most of the farmers still depend upon monsoons.
(2) Farmers still depend on natural fertilizer and manures and therefore the land does not gain fertility.
(3) Indian farmers are still using outdated tools and implements and have not implemented the use of modern farming machinery.

(4) They are still using traditional methods of farming and have not made use of new technique of farming, technical and institutional reforms.
(5) Division of land after every generation has led to fragments, allow of the land and smallholdings which have become uneconomic.

Question-66

Which crop is known as golden fibre? Describe the geographical requirements for its growth, and name the major states producing it.

Solution:

(1) Jute is known as the golden fibre.
(2) Geographical requirements: –
(a) Well drained fertile soils in the flood plains where soils are renewed every year.
(b) High temperature during the time of growth.

Question-67

Why is the production of pulses and oil seeds still lagging behind?

Solution:

(1) Though the production of oil seeds and pulses is rising but the population is growing at a greater pace.
(2) The production of pulses and oil seals is subject to fluctuation and market speculations.
(3) They need HYV seeds for high productivity, assured irrigation and chemical fertilizers, which are costly, and India farmers cannot afford them.
(4) Their support price is not attractive.

Question-68

Name the major challenges faced by the Indian farmers today?

Solution:

(1) Though the production of oil seeds and pulses is rising but the population is growing at a greater pace.
(2) The production of pulses and oil seals is subject to fluctuation and market speculations.
(3) They need HYV seeds for high productivity, assured irrigation and chemical fertilizers, which are costly, and India farmers cannot afford them.
(4) Their support price is not attractive.

Question-69

What are the implications of growing population on Indian farming?

Solution:

Following are the implications of growing population on farming:
(1)Almost every step has been taken to increase food production and now there is very little scope for increasing it further.
(2)India's population is increasing at an alarming rate. Whatever has been advised so far in food production would soon be neutralized by this ever growing population.

Question-70

How has agriculture contributed to the national Income and employment?

Solution:

(1) Agriculture has been the backbone of Indian economy. It provides employment and livelihood to nearly 63% of India's population (In 2001).
(2) Two thirds of India's population is engaged in agricultural activities.
(3) Agriculture is a primary activity which produces most of the food that we consume. Besides food grains, it also produces raw materials for many industries. Some agricultural products like tea, coffee, spices etc are exported and they bring in foreign exchange for the country.

Question-71

What are the 3 main problems faced by Indian farmers today?

Solution:

The problems faced by the Indian farmers are :-
(1) There is lack of availability of water for irrigation.
(2) Most of the farmers have small holdings which are uneconomical.
(3) The high yielding variety of seeds, chemical fertilizers, insecticides, pesticides etc are expensive and our farmers find it difficult to purchase these.
(4) The soil is loosing its fertility; due to soil erosion, absence of good forests.
(5) Our farmers have to take heavy loans. Therefore, to payback these, they are compelled to sell their produce at cheap rates.

Question-72

Who introduced tea in India? Why do we say that tea is a labour intensive industry? Where is it mostly produced? Name the major tea producing states.

Solution:

(1) The British introduced tea to India.
(2) Tea is labour intensive industry because it requires abundant, cheap and skilled labour.
(3) Tea is generally processed within the tea gardens to restore its freshness.
(4) Major tea producing states are – Assam, hills of Darjeeling and Jalpaigur districts, West Bengal, Tamil Nadu, Kerala. Besides, Himachal Pradesh, Uttaranchal, Meghalaya, Andhra Pradesh and Tripura are also tea producing states.

Question-73

Mention the important millets grown in India. Which of them is the 3rd most important crop with respect to area and production? What is the importance of millets? Give examples.

Solution:

(1) Jowar, bajra and ragi are the most important millets of India.
(2) Jowar is the 3rd most important crop with respect to area and production.
(3) Importance – Millets have high nutritional value. For example, Ragi is very rich in iron, calcium, other micro-nutrients and roughage.

Question-74

Give the second most important cereal crop of India? When is it grown? What is the temperature, soil, rainfall, and irrigation required for its production?

Solution:

(1) Wheat is the second most important cereal crop of India.
(2) This is a rabi crop, its sown in winter from October to December.
(3) It requires a cool growing season and a bright sunshine at the time of ripening.
(4) Requires 50 to 75 cms of annual rainfall, evenly distributed over growing seasons or irrigation facilities.

Question-75

Why has Indian agriculture been transformed from subsistence to commercial farming.

Solution:

Before independence Indian agriculture was mainly that of subsistence farming, but now it has changed to commercial farming. The reasons are –
(1) The small and scattered land holdings have been consolidated and converted to large holding and ploughed on cooperative basis.
(2) The farmers have started using modern techniques of farming and scientific methods; also they have started use of fertilizers and high yielding varieties of seeds and farm machinery.
(3) Irrigation methods have improved, resulting in increased soil fertility.
(4) New methods of agriculture like rotation of crops, inter cropping, strip cropping, multiple cropping, have been adopted for better results.
(5) As a result of production of wheat, rice, sugarcane, millets etc spices, cotton, jute, tea etc has increased many times.
Due to all these reasons Indian agriculture is shifting from subsistence to commercial farming.

Question-76
Distinguish between fertilizers and manures.
Solution:
(1) Fertilizers generally refer to chemical fertilizers which are produced in factories. They contain chemical elements like phosphorus, potassium and nitrogen etc.
(2) Whereas, manures refers to green leaf manures, farm wastes, compost produced by storing cow dung and farm wastes. Manures are of biological origin and are not prepared in factories.
Question-77
What are the differences between intensive agriculture and extensive agriculture/farming.
Solution:
Intensive Agriculture:
(1) To obtain high yields, large capitals and labourers are applied.
(2) The size of land holding is small, production per hectare is high.
(3) Most of the production is consumed locally.
(4) Manual labour and drought animals are mostly used.
Extensive Agriculture:
(1) As compared less capital and labour is applied.
(2) The size of land holding is large and production per hectare is low.
(3) Surplus production is sold in the market.
(4) Mechanized farming is practiced. This type of farming is practiced in sparsely populated areas.
Question-78
Differentiate between settled agriculture and shifting agriculture.
Solution:
Settled Agriculture:
(1) In agricultural farms, it is practiced permanently on a small or big piece of land. In this type of agriculture, size of the field is not paid much attention.
(2) The land / soil is often suitable for agriculture, if not it is made suitable by farmers, by using manures to increase the fertility of land.
Shifting agriculture:
(1) In this type of agriculture the place of cultivation changes after 2 to 3 crops, when there is over growth of grass, weeds etc. It is left fallow to regain its fertility.
(2) The land for this type of agriculture is obtained after burning bushes etc or after cutting down trees or bushes. The farmer does not use manure to regain the fertility of the land.
Question-79
What are the cropping seasons are found in India? When are crops sown & harvested in each of these. With examples.
Solution:
India has 3 cropping seasons Rabi, Kharif and Zaid.
a) Rabi – Crops are sown in winter from October to December and harvested in summer from april to june. Some of the important crops are – wheat, barley, mustard, peas, grass.
b) Kharif – Crops are grown with the outset of monsoons and harvested in September – October. Important crops are – paddy, maize, jowar, bazra, tur, moong, urad, cotton, jute, ground nut, soya bean.
c) Zaid – Crops are grown between rabi and kharif, there is a short season during summer known as Zaid season. Important crops are – watermelon, muskmelon, cucumber, vegetables and fodder crops. Sugar cane takes almost a year to grow.
Question-80
Define plantation farming. What are its main characteristics? Name any five plantation crops of India.
Solution:
Plantation farming is a bush or tree farming. In this type of farming a single crop in grown on a large

area. Characteristics –
This type of agriculture is found in:
(1) Hilly areas or North India, Sub Himalayas, W Bengal, Nilgiris, Andaman and cardamom hills.
(2) The plantation has an interface of agriculture and industry.
(3) Covers large areas of land.
(4) It is capital intensive, i.e it requires expensive inputs, requires skilled laboureres.
(5) All the production is used as raw material in respective industries. The important crops are tea, coffee, banana, sugarcane etc.

Question-81

Give the characteristics of commercial farming?

Solution:

(1) Use of higher doses of modern inputs, that is high yielding variety (HYV) seeds, chemical fertilizers, insecticides and pesticides in order to obtain higher productivity.
(2) Agriculture goods are mainly produced for sale.
(3) The main crops are rice, millets, spices, cotton, etc. The farmer can sell them on commercial lines.
(4) The degree of commercialization varies from one region to another. For example, rice is a commercial crop in Haryana and Punjab, but in Orissa, it is subsistence farming.

Question-82

What is slash and burn agriculture?

Solution:

In this farmers clear a patch of land and produce cereals and other crops to sustain their family, when the soil looses its fertility, the farmers shift and clear a fresh patch of land for cultivation. Nature replenishes the fertility of soil through natural processes. Land productivity in this type of agriculture is low, because the farmers do not use fertilizers or other modern inputs. It is generally known as shifting agriculture, but also known in different names in different parts of the country.

Question-83

Define subsistence farming and give its main characteristics.

Solution:

Refers to an agricultural system where crops are produced for self use or for circulation within the social networks for ritual, ceremonial exchange puposes, and some food may be sold in the market.
Characteristics:-
(a) Small scattered land holding.
(b) Primitive tools.
(c) Farmers being poor do not use fertilizers and high yielding quality seeds as per requirement, facilities like electricity, irrigation, generally is not available to farmers.
(d) It has given way to commercial agriculture to some extent.

Question-84

What are the different types of farming / agriculture practiced in India?

Solution:

(1) Primitive Subsistence Farming – Known by different name in different parts of India,subdivided into shifting agriculture.
(2) Intensive Subsistence Farming – Practiced in areas of high population pressure. It is labour intensive.
(3) Commercial Farming – Includes plantation farming.

Question-85

Describe the geographical conditions required for the growth of rice.

Solution:

It is a kharif crop, which requires –
(a) High Temperature – above 15. C and high humidity.
(b) Rainfall – Annual rainfall above 100cms. In areas of less rainfall, it grows with the help of

irrigation.
(c) Plains of North and North-eastern India, coastal areas and deltaic regions are suitable for the growth of rice.

Question-86

What type of soil is suited for cultivation of tea?

Solution:

Deep fertile well drained soil rich in humus and organic matter is suited for cultivation of tea.

Question-87

Mention two characteristics of commercial farming.

Solution:

High doses of fertilisers and pesticides are used in commercial farming.

Question-88

Which price is announced by the government in support of a crop?

Solution:

Minimum Support Price is announced by the government in support of a crop.

Question-89

Name four major wheat producing states in India.

Solution:

Punjab, Haryana, Uttar Pradesh and Madhya Pradesh are the four major wheat producing states in India.

Question-90

How have technological and institutional reforms been able to improve the conditions of Indian farmers?

Solution:

The Zamindari system in which property rights are vested on absentee landlords was abolished after India became independent. Ownership rights were transferred to the actual tillers of the land. The new land owners made improvements on their lands. This led to increase in yields.
Land ceiling acts were passed to ensure that no person could hold agricultural land beyond a specified limit. The excess land was distributed among the landless labourers.
Small land holdings scattered over various places were consolidated through the Consolidation of holdings Acts passed by the State legislatures. This resulted in farmers being able to fence their lands, sink wells and use modern agricultural machinery.
Formation of Corporative societies helped farmers get seeds, pesticides and fertilizers at economical prices. All these helped improve the condition of the Indian farmers.

Question-91

What is the importance of agriculture on Indian economy? Name 3 features of Indian agriculture.

Solution:

a. India is an agricultural country.
b. Nearly two-thirds of its population depends directly on agriculture for its livelihood.
c. Agriculture is the main stay of India's economy.
d. It accounts for 26% of the gross domestic product.
e. It ensures food security for the country and produces several raw materials for industries.
f. Agricultural development is therefore, a precondition of our national prosperity.
Features
a. Farmers own small piece of land and grow crops primarily for their own consumption.
b. Animals play a significant role in the various kinds of agricultural activities.
c. Farmers depend mainly upon monsoon rains.

Question-92

Solution:

a. Plantation farming is bush or tree farming

b. The British introduced it in the nineteenth century.
c. It is a single crop farming of rubber, tea, coffee, cocoa, spices, coconut and fruits like apples, grapes, oranges etc.
d. It is capital intensive and demands good managerial ability, technical know-how, sophisticated machinery, fertilizers, irrigation and transport facilities.
e. Some of the plantations like tea, coffee, rubber have a processing factory within the farm itself or close to it.
f. This type of agriculture has developed in hilly areas of north- eastern India, sub-Himalayan, West Bengal and in Nilgiri, Anamalai and Cardamom hills in peninsular India.

Question-93:
Describe various technological and institutional reforms, which led to Green and White revolutions in India.

Solution:
The various technological and institutional reforms consist of various measures taken by the Central and State governments from time to time. Flooding of fields with water is now being replaced by drip irrigation and the use of sprinklers. Chemical fertilizers are being used on a large scale, to increase the farm yields. Bio- fertilisers are now supplementing them. High yielding and early maturing quality seeds have been developed. Most of these technology inputs gave birth to Green Revolution in sixties and seventies of twentieth century. White Revolution followed the Green Revolution.

LAQ

Q.1. Why is agriculture called the mainstay of Indian economy ?
Or
What is the importance of agriculture in Indian economy ?
Ans. (i) Agriculture is the mainstay of Indian economy because about 60% of our population depends directly or indirectly on agriculture.
(ii) It provides raw materials to the industries.
(iii) India earns foreign exchange by exporting agricultural products.
(iv) It contributes about 29% to the Gross Domestic Product.
(v) It provides food to over 1210.2 million population.

Q.2. What is primitive (subsistence) farming ? Write any four features of subsistence farming. [CBSE Comp. (O) 2008]
Or
Why is subsistence agriculture still practised in certain parts of the country ? Give four reasons. [CBSE Sept. 2010]
Ans. A farming in which the main production is consumed by the farmer's household is known as subsistence farming.
Features :
(i) Old technology and traditional implements are used.
(ii) Agricultural fields are small and farmers possess scattered land holdings.
(iii) Most of the farmers are poor, and do not use fertilisers and HYV seeds.
(iv) The overall productivity is very low. *

Q.3. What is intensive farming ? Write some features of intensive farming. [CBSE Sept. 2013]
Or

Why is there enormous pressure on land in Intensive Subsistence Farming ? [CBSE 2013]

Ans. Intensive farming : It is a type of farming in which the agricultural production is increased by using scientific methods and better agricultural inputs.

Features :

(i) HYV seeds and modern inputs are used to increase the production.

(ii) More than one crop is cultivated during a year.

(iii) It is practised in thickly populated areas.

(iv) The per hectare yield is very high.

Q.4. What is plantation agriculture ? Write some features of the plantation agriculture. [CBSE Sept. 2012]

Or

Describe any four characteristics of plantation agriculture. [CBSE Comp. (D) 2008]

Ans. This is a type of agriculture which involves growing and processing of a single cash crop purely meant for sale. Rubber, tea, coffee, spices, coconut and fruits are some of the * important crops which come under the category of plantation agriculture.

Features :

(i) It is a single crop farming.

(ii) It is a capital intensive farming, i.e., a huge amount of capital is required.

(iii) It needs vast estates, managerial ability, technical know-how, sophisticated machinery, fertilisers, good transport facilities and a factory for processing.

(iv) This type of agriculture has developed in areas of north-eastern India, Sub-Himalayan region, West Bengal and Nilgiri.

Q.5. What is shifting agriculture ? Why shifting agriculture is being discouraged ?

Ans. It is that type of agriculture in which farmers clear the forest land and use it for growing crops. The crops are grown for 2 to 3 years, and when the fertility of the soil decreases, the farmer shifts to a new land. Dry paddy, maize, millets and vegetables are the crops commonly grown in this type of farming.

It is being discouraged because :

(i) This leads to deforestation.

(ii) The per hectare yield is very low.

Q.6. Explain the favourable geographical conditions required for the production of rice. Also mention the major rice producing states of India. [CBSE Sept. 2010, 2011, 2012, 2013]

Ans. (i) Temperature : It is a kharif crop which requires high temperature, and high humidity. This means monthly temperature of about 25°C with minor variation during the sowing, growing and harvesting season, is suitable for the growth of the plant.

(ii) Rainfall : Rice needs abundant rainfall, i.e., more than 100 cm. It can grow in areas with less rainfall, but with assured irrigation. Rice is grown in Punjab and Haryana with the help of irrigation.

(iii) Soil : Rice can grow in a variety of soils including silts, loams and gravels, but it is grown best in alluvial soil with a sub-soil of impervious clay. Areas of production : Rice is cultivated in almost all the states of India, but most of its cultivation is concentrated in the river valleys, deltas of rivers and the coastal plains.

The main rice producing states are West Bengal, Andhra Pradesh, Uttar Pradesh, Bihar, Punjab, Odisha, Karnataka, Assam and Maharashtra.

Q.7. What type of climate is required for the cultivation of wheat ? Name any four important wheat producing states of India. [CBSE Sept. 2012]
Ans. (i) Temperature : Cool and moist weather during growth, and warm and dry climate during ripening is needed.
(ii) Rainfall : 50-75 cm rainfall is required. Rainfall is necessary and beneficial, 15 days after sowing, and 15 days before ripening. A few light winter showers or assured irrigation ensures a bumper harvest.
(iii) Soil : Light domat (loamy) soil is required. It can also be grown in black soil. Important producers : Punjab, Haryana, western Uttar Pradesh and Madhya Pradesh are the main producers of wheat.

Q.8. Describe three geographical requirements for maize cultivation – temperature, rainfall and soil. Name three maize producing states of India. [CBSE Sept. 2010]
Ans. (i) Temperature : It grows well under temperature between 21°C and 27°C.
(ii) Rainfall : It grows well in areas of 50¬100 cm of rain, and in areas of less rain, if grown under irrigation.
(iii) Soil : It requires well drained alluvial fertile soil or red loams free from coarse materials.
Important produces : Karnataka, Uttar Pradesh, Bihar and Andhra Pradesh are the leading producers.

Q.9. Describe the temperature and climatic conditions required for the cultivation of sugarcane. Name two leading producers. [CBSE Comp. 2008,09(D), 2010(0)]
Or
What geographical conditions are required for the cultivation of sugarcane ? Name two largest producing states of sugarcane. [CBSE Sept. 2010]
Ans. (i) Temperature : Sugarcane needs hot and humid climate with temperature ranging between 21°C to 27°C. Very high temperature is harmful for its growth, while low temperature slows its growth. It cannot withstand frost. Cool temperature is needed at the time of ripening.
(ii) Rainfall : It grows best in areas receiving 75 cm to 100 cm of rainfall. Too heavy rainfall results in low sugar content.
(iii) Soil : Sugarcane grows on well-drained fertile soil. It can grow on a variety of soils including black, alluvial, loamy and reddish loam.
Sugarcane :
But the best soil is the alluuial soil of the Ganga Plain and the black soil of southern India. Sugarcane exhausts the fertility of the soil. Hence, the use of manure is essential to ensure high yields.
Areas of Production :
Uttar Pradesh is the largest producer of sugarcane. The other states in the Ganga-Plain are Bihar, Punjab and Haryana.

Q.10. Name the most important beverage crop of India. Describe the suitable climatic conditions required for its growth. Also mention the major states producing that crop. [CBSE 2010(0)]
Or
Describe any three geographical conditions required for tea cultivation. Name any two producing states of tea. [CBSE Sept. 2010, 2012]
Or
Name the important beverage crop introduced by the British in India. Explain the geographical conditions needed for its cultivation. Write any two important states where it is grown. [CBSE 2013]
Or
Describe any four ' geographical conditions required for the growth of tea. Mention the two major tea producing states of South India. [CBSE 2012]

Ans. Tea is the most important beverage crop of India.
Climatic conditions :
(i) Temperature : The tea plant grows well in tropical and sub tropical climate. Tea bushes require warm and moist, frost-free climate all through the year. Tea bushes need temperature of more than 25°C.
(ii) Rainfall : Tea plant needs heavy rainfall ranging between 150 cm to 250 cm. The rainfall should be well distributed throughout the year.
(iii) Soil : The plant requires a light loamy soil. The soil should be rich in humus and iron content. Tea is a soil exhausting crop, so frequent use of chemical fertilisers and manure is essential.
Producers :
Major tea-producing states are Assam, West Bengal, (Hills of Darjeeling and Jalpaiguri Districts), Tamil Nadu and Kerala. Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea producing states in the country.

Q.11. Explain the favourable climatic conditions required for the production of rubber. Also mention the states producing rubber. [CBSE Comp. (D) 2008, 2008 (F), Sept. 2010, 2011, 2012]
Ans. (i) Temperature : It is a tree of the tropical forests, and requires a constant high temperature above 25°C. Thus, the rubber tree cannot be grown at high altitudes.
(ii) Rainfall : It needs heavy and well distributed rainfall throughout the year. The plant needs rainfall more than 200 cm.
(iii) Soil: The plant requires alluvial or laterite soil. Areas of Production :
India ranks fifth among the world's natural rubber producers. The state of Kerala is the largest producer of rubber in India. Kerala accounts for about 91% of the total area under rubber plantation. Tamil Nadu, Karnataka and The Andaman and Nicobar islands including the Garo Hills of the Himalayas are the other producers.

Q.12. Explain the climatic conditions required for the production of cotton. Also mention the major cotton producing states of India.
Ans. (i) Temperature : Cotton needs a warm climate. Summer temperatures of 21°C to 27°C, and abundant sunshine is necessary during the growth of the plant. A long growing period of atleast 210 frostfree days is also necessary for the plant to mature.
(ii) Rainfall : Moderate to light rainfall is adequate for cotton cultivation. Rainfall ranging between 50 cm to 80 cm is adequate. The crop can be successfully grown in areas of low rainfall with the help of irrigation.
(iii) Soil : Cotton can be grown on a variety of soils but the black cotton soil of the Deccan Plateau which has the ability to retain moisture is most suitable. It also grows well in alluvial soils of the Satluj-Ganga Plain.
Areas of Production :
The leading cotton producing states are Gujarat, Maharashtra, Andhra Pradesh, Punjab, Haryana, Karnataka, Tamil Nadu and Madhya Pradesh. Punjab and Haryana grow the long staple variety.

Q.13. Which crop is known as the "golden fibre" ? Explain two geographical conditions essential for the cultivation of this crop. Mention any four uses. [CBSE 2012]
Or
What is known as 'golden fibre'? Where is it grown in India and why ? Describe various uses of this fibre. [CBSE 2012]
Ans. (1) Jute is called golden fibre.
(2) Geographical conditions for its cultivation are as follows :
(i) Jute grows well in well-drained fertile soils of the flood plains where the soil is renewed every year.

(ii) High temperature is required during the time of growth.
(3) It grows well on well-drained fertile soils in the flood plains.
(4) Therefore, it is grown in West Bengal, Bihar, Assam, Odisha and Meghalaya.
Uses : It can be used to manufacture gunny bags, mats, ropes, yam, carpets and other artifacts.

Q.14. Differentiate between the commercial agriculture and the subsistence agriculture. [CBSE Sept. 2010, 2011, 2012, 2013]
Or
Write any four characteristics of commercial Agriculture? [CBSE Sept. 2011]

Write any four characteristics of commercial agriculture. [CBSE Sept. 2011]

Ans.

Commercial Agriculture	Subsistence Agriculture
(*i*) Commercial agriculture is that practice of farming in which crops are grown for trade.	(*i*) Subsistence agriculture is that practice of farming in which the farmer and his family raise crops for home consumption.
(*ii*) This is practised on large farms.	(*ii*) This is practised on small farms.
(*iii*) This is capital intensive.	(*iii*) This is labour intensive.
(*iv*) Modern technology and implements are used. For example: The production of sugarcane in Uttar Pradesh.	(*iv*) Old technology and old implements are used. For example: The production of wheat in some parts of India.

Q.15. Distinguish between :
(i) Dry farming and wet farming.
Or
Write any two features of dry farming/wet farming.
(ii) Rabi and kharif crop.

(iii) Tea and coffee. [CBSE Sept. 2010]

Ans. (*i*)

Dry Farming	Wet Farming
(*i*) Dry farming is that farming in which moisture is maintained by raising a special type of crops.	(*i*) Wet farming is a type of farming which depends mainly upon rain.
(*ii*) This is practised in dry areas of the country such as, North Western India.	(*ii*) This type of far-ming is prevalent in the North, North-Eastern, Eastern India and the Western slopes of the Western Ghats.
(*iii*) Gram and peas are the important crops.	(*iii*) Rice, jute, sugar-cane, etc., are the important crops.

(*ii*)

Rabi Crop	Kharif Crop
(*i*) Rabi crops are sown with the beginning of winter, i.e., in the months of October-November, and are harvested in the months of March-April.	(*i*) Kharif crops are sown with the onset of the monsoon,i.e., June-July, and are harvested in the beginning of winter, i.e., October-November.
(*ii*) Wheat, barley, gram and oilseeds are the major rabi crops.	(*ii*) Rice, maize, millets, cotton, groundnut, etc. are the major kharif crops.

(iii)

Tea	Coffee
(i) ***Temperature :*** Ideal temperature for the growth of plant is 20°C to 30°C.	(i) *Temperature :* Ideal temperature for the growth of plant is 15°C to 28°C.
(ii) ***Rainfall :*** It requires an annual rainfall of about 150-300 cm.	(ii) *Rainfall :* It requires an annual rainfall of about 150-200 cm.
(iii) ***Soil :*** The plant requires a light loamy soil.	(iii) *Soil :* The plant requires red and laterite soil.
(iv) ***Producers :*** Assam, West Bengal, Tamil Nadu and Kerala.	(iv) *Producers :* amil Nadu, Kerala and Karnataka.

Q.16. Which are the two staple food crops of India ? Compare and contrast the climatic and soil requirements of the two. [CBSE Sept. 2013]

Ans. Rice and wheat are two staple food crops of India

Ans. *Rice* and *wheat* are two staple food crops of India.

Rice	Wheat
(*i*) It requires an average temperature of 25°C with minor variations during the sowing, growing and the harvesting seasons.	(*i*) It requires a different climate during the sowing and harvesting season. Low temperature during the period of sowing, but high temperature during the harvesting period. An average of 21°C should be maintained.
(*ii*) It requires rainfall above 100 cm.	(*ii*) Rainfall of 50–75cm is sufficient.
(*iii*) It requires a loamy and alluvial soil.	(*iii*) Loamy, dumat and black soil is required.

Q.17. Name any four oilseeds produced in India. What is their economic importance ?
Or
Name any four oilseeds produced in India. Explain the importance of oilseeds in our day to day life. [CBSE 2012]
Ans. Main oilseeds produced in India are :
(i) Groundnut (ii) Mustard
(iii) Coconut (iv) Sesamum

Economic importance of oilseeds :
(i) Most of these are edible, and used as a cooking medium in the form of oil.
(ii) Extracted oil is also used as raw material for manufacturing large number of items like paints, varnishes, hydrogenated oil, soaps, perfumes, lubricants, etc.
(iii) Oil cake which is the by product, obtained after the extraction of oil from oilseeds is an excellent cattle feed.
(iv) Oil cake is also used as a fertilisers.

Q.18. Which states are the leading producers of the following horticultural crops ?
(i) Mangoes
(ii) Bananas
(iii) Grapes
(iv) Apples and Apricots
Ans. (i) Mangoes : Maharashtra, Andhra Pradesh, Uttar Pradesh and West Bengal.
(ii) Bananas : Kerala, Mizoram, Maharashtra and Tamil Nadu.
(iii) Grapes : Andhra Pradesh and Maharashtra.
(iv) Apples and Apricots : Jammu and Kashmir and Himachal Pradesh.

Q.19. Look at the given picture carefully and answer the questions that follow : [CBSE 2009 (O)]
(i) Name the crop shown in the picture.
(ii) State the climatic conditions required for the cultivation of this crop.
(iii) Name the two major regions of growing this crop.
Ans. (i) Rice.
(ii) Refer Q.No. 6, Long Answer Type Questions.
(iii) Refer Q.No. 6, Long Answer Type Questions.

Q.20. "Today Indian farmers are facing a big challenge from international competition." What are the various factors responsible for this situation ?
Or
Why is the growth rate in agriculture decelerating ? [CBSE 2010(F)]
Ans. (i) The Indian government is going ahead with reduction in the public investment in the agriculture sector particularly in irrigation, power, rural roads, market and mechanisation.
(ii) Subsidy on fertilisers is decreased leading to increase in the cost of production.
(iii) Reduction in import duties on agricultural products have proved detrimental to agriculture in the country.
(iv) Farmers are withdrawing their investment from agriculture causing a downfall in the employment in agriculture.

Q.21. Name any three features of Indian agriculture. [CBSE 2013]
Or
What are the factors responsible for the backwardness of Indian agriculture ?
Or
Describe any four features of agriculture in India. [CBSE Sept. 2010]
Ans. (I) Over dependence on monsoon : Major portion of the cropped area still depends upon monsoons for irrigation. Only one- third of the cropped area is under assured irrigation.
(ii) Subsistence agriculture : (For this, refer Question No. 2, Long Answer Type Questions)
(iii) Small and scattered land holding : Due to the increasing population, the per hectare availability of land is very low. The Jand holding is also scattered.
(iv) Lack of inputs : Most of the farmers are poor so they do not use fertilisers and high yielding varieties of seeds.

Q.22. Describe various technological and institutional reforms which led to the Green and White Revolution in India. [CBSE Sept. 2012]
Ans. No description regarding white Revolution. Green Revolution means revolution in the field of agricultural production due to the introduction of various technological and institutional reforms.
Factors responsible :
(i) Agriculture was given the top priority in Five Year Plans.

(ii) The development of HYV seeds of wheat in the early 60s, and those of rice in 70s laid the foundation of the Green Revolution in India.
(iii) Several schemes for irrigation were undertaken, and arid and semi-arid areas were brought under cultivation.
(iv) Collectivisation, consolidation of holdings, abolition of the Zamindari system, etc., were given top priority to bring about institutional reforms in the country after independence.
(v) Cropped insurance scheme was launched by the government to protect the farmers against losses caused by crop failure on account of natural calamities like drought, flood, hailstorm, cyclone, fire, etc.
(vi) Easy availability of capital or investment, input through a well knit network of rural banking and small scale co-operative societies with low interest rates were other facilities provided to the farmers for the modernisation of agriculture.

Q.23. Compare the geographical conditions required for the production of cotton and jute. [CBSE 2014]
Ans. The following geographical conditions are required for the production of cotton and jute :

Ans. The following geographical conditions are required for the production of cotton and jute :

Cotton	Jute
(*i*) Cotton requires more than 21°C of temperature.	(*i*) Jute requires temperature of 30° C.
(*ii*) 50-100 cm of rainfall is required.	(*ii*) Near about 150 cm of rainfall is required.
(*iii*) Frostfree days are must during picking days.	(*iii*) Hot and humid climate is required.
(*iv*) Deep domat (loamy) and black soil is required.	(*iv*) Well drained fertile loamy soil is required.
(*v*) Cotton is mainly grown in Maharashtra and Gujarat.	(*v*) Eastern states of the country are ideal for jute cultivation.

Q.24. How is the government helping the Indian farmers in increasing their agricultural production ? Explain any four points.
Or
Describe any four reforms brought in the Indian agriculture after independence through the efforts of the Indian government. [CBSE 2010(F), Sept. 2010]
Or
What initiatives have been taken by government to ensure an increase in agricultural production ? [CBSE Sept. 2011]
Ans. (i) Institutional Reforms : To increase production in agriculture, the government has introduced some institutional measures which include collectivisation, consolidation of holding, cooperation and abolition of Zamindari system.
(ii) Comprehensive Land Development Programme : In the 1980s and 1990s, a comprehensive land development programme was initiated, which included both institutional and technical reforms. Provision for crop insurance against drought, flood, cyclone, fire and disease, establishment of Grameen banks, cooperative societies and banks for providing loan facilities to the farmers at lower rates of interest were some important steps in this direction.
(iii) Subsidies : The government is providing huge subsidies on the agricultural inputs. At present, maximum subsidy is being given on fertilizers.
(iv) HYV Seeds and Agriculture Universities : In order to enhance production, the government is providing HYV seeds to the farmers. Special seminars are also being held. Many new agricultural universities have been established.
(v) Public Procurement System and Agriculture Price Commission : Agriculture Price Commission has been set up which declares the prices of agricultural products in advance so that the farmers may know what they are going to get for their agricultural products. Government agencies like the F.C.I. (Food Corporation of India) purchase the agricultural products from the farmers.
(vi) Crop Insurance and Agricultural Finance : As we are aware that the Indian agriculture mainly depends on nature, so high risk crops are also being insured. The government has established special banks like the NABARD to provide agricultural loans to farmers.

SAQ

Social Sciences CBSE Class 10 Geography Agriculture SAQ

Q.1. Define the following terms :
(i) Agriculture
(ii) Kharif Crop
(iii) Zaid Crop
Ans. (i) Agriculture : The art and science'4 of cultivating soil, raising crops and rearing livestock including animal husbandry and forestry.
(ii) Kharif Crop : The Kharif season starts with the onset of the monsoon, i.e., June-July and continues till the beginning of winter, i.e, October-November.
(iii) Zaid Crop : These are crops which are sown between the rabi and kharif crops. Watermelon, muskmelon, cucumber and vegetables are some examples of the zaid crops.

Q.2. Mention any three features of slash, and burn agriculture.
Ans. (i) Farmers clear a patch of land and produce cereals and other food crops to sustain their family.

(ii) When the soil fertility decreases, the farmers shift and clear a fresh patch of land for cultivation.
(ii) India has tropical climate with ample sunshine. So, we have a long growing season.

Q.76. List two characteristics of Green Revolution.
Ans. (i) Increase in production of wheat and rice, (ii) Use of high yielding varieties of wheat and rice.

Q.77. Diversification of agriculture can be helpful for the Indian farmers. Explain.
Ans. (i) Most of the traditional crops like wheat and rice have very low market value as compare to fruits, medicinal herbs, flowers etc.
(ii) India's diverse climate can be harnessed to grow a wide range of high value crops.
Marks each
(iii) This type of shifting allows nature to replenish the fertility of the soil through natural processes; land productivity in this type of agriculture is low as the farmer does not use fertilisers or other modem inputs.

Q.3. Distinguish between intensive subsistence and primitive subsistence farming. [CBSE 2012]

Q.3. Distinguish between intensive subsistence and primitive subsistence farming.
[CBSE 2012]

Ans.

Primitive subsistence	Intensive subsistence
(*i*) This type of farming is practised on small patches of land with the help of primitive tools like hoe, dao and digging sticks.	(*i*) This type of farming is practised with the help of modern tools and modern inputs.
(*ii*) Land productivity under this type of agriculture remains very low.	(*ii*) Land productivity under this type of agriculture is high.
(*iii*) This type of agriculture is practised in North-East states.	(*iii*) This type of agriculture is practised in northern plains.

Q.4. What is commercial farming ? Mention its major features. [CBSE 2014]
Ans. Commercial farming is a type of farming under which farmers grow crops to sell in the market.
Features:-
(i) Farmers use higher doses of modern inputs, e.g., high yielding variety (HYV) seeds, chemical fertilisers, insecticides etc.
(ii) The per hectare productivity is very high.
(iii) Rice, sugarcane, tea, coffee are the major crops which are grown under this.

Q.5. (i) What is a plantation agriculture ?
(ii) Mention any four plantation crops produced in India.
(iii) Mention any two factors which play an important role in the development of plantations.
Ans. (i) Plantation agriculture is a type of commercial farming under which a single crop is grown on a large area.
(ii) Tea, coffee, rubber and sugarcane.
(iii) (a) Developed network of transport and communication connecting the plantation areas.
(b) Developed market.

Q.6. Name the cropping seasons of India with one crop of each season.
Ans. (i) Rabi – Wheat
(ii) Kharif – Rice
(iii) Zaid – Watermelon

Q.7. (i) What are rabi crops' ? Give four examples.
Or
Mention growing and harvesting periods of rabi crops. [CBSE 2008]
(ii) Mention any two important factors responsible for the success of the rabi crops.
Ans. (i) The crops which are grown in winter from October to December and harvested in summer from April to June are known as rabi crop. *
Examples : Wheat, Barley, Peas and Gram, (ii) (a) Availability of precipitation during the winter months due to the western temperate cyclone.
(b) The success of Green Revolution in Punjab, Haryana and Western Uttar Pradesh.

Q.8. With reference to kharif crop, answer the following questions :
(i) When are kharif crops sown ?
(ii) Name any four states which are the main producers of kharif crops.
(iii) Name some kharif crops.
Ans. (i) These are sown with the onset of monsoon.
(ii) (a) Assam
(b) West Bengal
(c) Andhra Pradesh
(d) Tamil Nadu
(iii) Rice, millet, maize, groundnut, jute and cotton.

Q.9. Give any three features of zaid crops. [CBSE 2014]
Ans. (i) The crops which are grown in between rabi and the kharif crops are known as zaid crops.
(ii) These crops are of short duration.
(iii) Watermelon, cucumber, vegetables and fodder crops are most important examples of zaid crops.

Q.10. Mention any four features of the primitive subsistence farming. [CBSE Comp. (O) 2008, 14]
Ans. (i) Primitive subsistence agriculture is practised on small patches of land with the help of primitive tools like hoe, dao and digging sticks with the help of family/community labour.
(ii) This type of farming depends upon the monsoon, natural fertility of the soil and suitability of other environmental conditions for the crops to be grown.
(iii) Under this, farmers produce for self-consumption.
(iv) Per hectare availability of land is very low.

Q.11. Mention any three characteristics of the Shifting Agriculture.
Ans. (i) The patch of land is cleared by cutting and burning the trees.
(ii) Farming depends upon monsoons, natural fertility of the soil and suitability of the other environmental conditions.
(iii) Per hectare productivity is very low as farmers do not use manure, fertilisers or other modem inputs.

Q.12. What is Intensive Subsistence Farming ? Mention its two features.
Ans. This type of agriculture is practised in those areas or regions, or countries where the cultivable land is limited and the density of population is very high. Major features of intensive agriculture are :
(i) Per hectare yield is high.
(ii) Farmers apply modern inputs like fertilisers, pesticides, high yielding varieties of seeds, etc., to obtain high yield.

Q.13. Name the important millets grown in India. Mention any two features of millets.
Ans. (i) Jowar, bajra and ragi are the three important millets grown in India.
(ii) Millets are also known as coarse growns.
(iii) Most of millets have a very high nutritional value.

Q-14. Name the two most important food crops of India. Name any states where they are produced. [CBSE 2013]
Ans. (i) The most important food crops of India are rice and wheat.
(ii) Major areas where rice is grown are : Bengal, Bihar, Assam, Odisha, Andhra Pradesh.
(iii) Major areas where wheat is grown are : Punjab, Haryana and Uttar Pradesh.

Q.15. Explain any two geographical conditions required for the cultivation of pulses. Name any two important pulses producing states. [CBSE 2013]
Ans. Geographical conditions required for the cultivation of pulses :
(i) Pulses need less moisture and survive even in dry conditions.
(ii) Temperature is required from 25°C to 30°C.
(iii) Pulses grow well in the areas of 50-75 cm rainfall.
(iv) These can be grown on all types of soil but dry light soil is the best suited.
(v) Pulses are leguminous crops which help in restoring soil fertility by fixing nitrogen from the air. Thus, pulses are mostly grown in rotation with other crops.
Major pulses producing states are : Madhya Pradesh Rajasthan Maharashtra Karnataka.

Q.16. With reference to millets, answer the following questions :
(a) What are the geographical conditions required for the cultivation of millets ?
(b) Name any two states which are the leading producers of millets.
Ans. (a) (i) Millets need very low rainfall.

(ii) They need sandy and shallow black soil, (b) Rajasthan and Maharashtra are the leading producers of millets.

Q.17. Name two important beverage crops grown in India. Who introduced these crops to the country ? What type of agriculture is followed for their cultivation ? [CBSE 2013]
Ans. (i) Tea and coffee are the two important beverage crops grown in India.
(ii) Tea was initially introduced by the British in India. The Arabica variety of coffee initially brought from Yemen is produced in the country.
(iii) Plantation agriculture is followed for their cultivation.

Q.18. What is agricultural term used for cultivation of fruits and vegetables ? Mention its three features with reference to India. [CBSE 2014]
Ans. Horticulture Features :
(i) India is one of the major producer of fruits and vegetables in the world.
(ii) It is a producer of tropical as well as temperate fruits.
(iii) India produces about 13% of the world's vegetable.

Q.19. With reference to fibre crops, answer the following questions :
(i) Name the four fibre crops grown in India.
(ii) Name the fibre crop which is known as golden fibre.
Ans. (i) Cotton, jute, hemp and natural silk are the four major fibre crops grown in India.
(ii) Jute.

Q.20. With reference to oilseeds, answer the following questions :
(i) Name a kharif oilseed. Also mention the three states which are the leading producers of the crop mentioned by you.
(ii) Name any two rabi oilseeds.
Ans. (i) Groundnut. Andhra Pradesh, Tamil Nadu, Karnataka and Gujarat are the leading producers of groundnuts.
(ii) Linseed and mustard.

Q.21. Which fibre is known as the 'golden fibre'? Why is the fibre named by you losing the market?
Ans. Jute. It is losing market because :
(i) High cost of production.
(ii) Cheap substitutes are available.
(iii) Bangladesh giving a tough competition.

Q.22. What was Comprehensive Land Development Programme?
Ans. Under Comprehensive Land Development programme, institutional and technical reforms were introduced to increase the agricultural production.
Provision for crop insurance against drought, flood, cyclone, fire and disease, establishment of grameen banks, cooperative societies and banks for providing loan facilities to the farmers at lower rates of interest were some important steps in this direction.

Q.23. Mention any three steps which have been taken by the government to check the exploitation of farmers by speculators and middlemen.
Ans. (i) Announcement of the minimum support price.
(ii) Opening of regulated markets.

(iii) Announcement of procurement price.
(iv) Encouraging cooperation marketing.

Q-24. Name any four factors that have distorted the cropping pattern in India.
Ans. (i) High minimum support price.
(ii) High subsidies for various inputs.
(iii) Committed FCI purchases.
(iv) Assured means of irrigation.

Q.25. Name the state which is the leading producer of.rubber. Give two reasons.
Ans. Kerala leads in the production of rubber because :
(i) Rubber requires high temperature and heavy rainfall throughout the year.
(ii) It requires cheap labour which is easily available in Kerala.

Q.26. Write two differences between intensive and extensive farming. [CBS£ 2014]

Ans.

Intensive Farming	Extensive Farming
(*i*) Production is increased by using higher inputs and new techniques.	(*i*) Production is increased by bringing more and more area under cultivation.
(*ii*) This is done in thickly populated areas, where no additional land is available.	(*ii*) This is done in thinly populated areas.

Q.27. With reference to oilseeds, answer the following questions :
(a) Which is the main oilseed produced in India ?
(b) Which state is the leading producer of that oilseed ?
(c) Name two oilseeds which are grown as rabi as well as kharif crop.
Ans. (a) Groundnut (b) Andhra Pradesh (c) Sesamum and Castor.

Q.28. What is the importance of rubber for the Indian economy ?
Ans. (i) Rubber is an important industrial raw material.
(ii) It is used in automobile industry.
(iii) It is also the major input for the footwear industry.
(iv) India earns foreign exchange by exporting raw rubber and rubber products.

Q.29. Distinguish between rotation of crops and multiple cropping.

Q.29. Distinguish between rotation of crops and multiple cropping.

Ans.

Rotation of crops	Multiple cropping
(*i*) Rotation of crops is the process which helps to retain the fertility of the soil. The crops are grown alternatively. **For example:** Wheat is grown in one season and sugarcane is grown in other.	(*i*) Raising more than one crop on the same field during the same season is known as multiple cropping. **For example:** Wheat and mustard.

VSAQ

Q-1- What is agriculture ?
Ans. The art and science of cultivating soil, raising crops and rearing livestock including animal husbandry and forestry.

Q.2. Name any two farming system (agriculture type) which are practised in India.
Ans. (a) Primitive subsistence (fa) Commercial farming

Q.3. Name any four agricultural products exported by India.
Ans. (a) Tea
(b) Coffee
(c) Spices
(d) Jute

Q.4. What is primitive subsistence farming ? [CBSE 2014]
Ans. It is a type of agriculture / farming which is practised on small patches of land with the help of primitive tools like hoe, doa, digging sticks and family / community labour.

Q.5. What is slash and bum agriculture ?
Ans. Under slash and bum agriculture, farmers clear a patch of land and produce cereals and other food crops to sustain their family.

Q.6. Which type of agriculture is practised on small patches of land with the help of primitive tools ?
Ans. Primitive subsistence farming.

Q.7. What is intensive subsistence farming ?
Ans. It is a type of farming practised in areas with high density of population using modem inputs

Q.8. Name any two states where commercial farming is practised.
Ans. Punjab and Haryana.

Q.9. Mention any four plantation crops produced in India.
Ans. Tea, coffee, rubber and sugarcane.

Q.10. Mention any two factors which play an important role in the development of plantations.
Ans. (i) Developed network of transport and communication connecting the plantation areas.
(ii) Developed market.

Q.11. Name the cropping seasons of India with examples.
Ans. (i) Rabi – wheat
(ii) Kharif – paddy
(iii) Zaid – watermelon

Q.12. What are rabi crops ? Give four examples.
Ans. The crops which are grown in winter from October to December and harvested in summer from April to June. Wheat, barley, peas, gram are some examples of rabi crops.

Q.13. What is the period of kharif crop ? [CBSE 2014]
Ans. Kharif season starts with the onset of the monsoon i.e., June-July and continues till the beginning of winter i.e., October-November. For example, rice, millets etc.

Q.14. What are zaid crops ?
Ans. These are crops which are sown between the rabi and kharif crops. Watermelon, muskmelon, cucumber and vegetables are some examples of zaid crops.

Q.15. Mention any two important factors responsible for the success of rabi crops.
Ans. (i) Availability of precipitation during winter months due to the western temperate cyclone.
(ii) The success of Green Revolution in Punjab, Haryana and Western Uttar Pradesh.

Q.16. Name any four states which are the main producers of kharif crops.
Ans. (a) Assam (b) West Bengal (c) Andhra Pradesh (d) Tamil Nadu

Q.17. Name any two kharif crops. [CBSE 2014]
Ans. Rice, millet, maize, groundnut, jute, cotton.

Q.18. Name any two states where three crops of paddy are grown in a year.
Ans. Assam and West Bengal.

Q.19. Which is the staple crop of a majority of the people in India.
Ans. Rice.

Q.20. Which country is the largest producer of rice in the world ?
Ans. China.

Q.21. Mention any two factors which have made it possible to grow rice in areas of less rainfall such as Punjab, Haryana and Western Uttar Pradesh.
Ans. (i) Development of dense network of canal irrigation.
(ii) Modern inputs like fertilisers, pesticides etc.

Q.22. Which are the two important wheat growing zones in India ?
Ans. (i) The Ganga-Satluj plains.
(ii) North-west and black soil region of the Deccan. –

Q.23. Name the two most important wheat producing states of India.
Ans. Uttar Pradesh and Punjab.

Q.24. Name the important millets of India.
Ans. (a) Jowar (b) Bajra (c) Ragi (d) Maize

Q.25. Which states are the major producers of rice in India ?
Ans. West Bengal, Uttar Pradesh, Andhra Pradesh, Punjab and Tamil Nadu.

Q.26. Name any four cereal crops of India.
Ans. (a) Wheat (b) Rice (c) Millet (d) Maize

Q.27. Name the state which is the leading producers of the following millets.
(i) Jowar (Ii) Bajra (ili) Ragi
Ans. (i) Jowar – Maharashtra.
(ii) Bajra – Rajasthan.
(iii) Ragi – Kamataka.s

Q.28. What is the importance of millets ? Mention any two points.
Ans. (i) They have very high nutritional value.
(ii) Maize and bajra is used as fodder.

Q.29. Name a millet which is a rain fed crop, mostly grown in the moist areas. Name the state which is the leading producer of that crop.
Ans. Jowar. Maharashtra is the largest producer of jowar.

Q.30. Name a millet which is used both as food and fodder.
Ans. Maize.

Q.31. Name the states which are the leading producers of maize.
Ans. Karnataka, Uttar Pradesh, Bihar and Andhra Pradesh.

Q.32. Which country is the largest producer of pulses in the world ?
Ans. India.

Q.33. Name the major pulses of India.
Ans. Tur, moong, masur, peas and gram.

Q.34. Why should the production of pulses be increased ? Give two reasons. [CBSE 2014]
Ans. (i) These are the major sources of protein for most of the people.
(ii) These plants help in restoring the fertility of the soil.

Q.35. Why pulses are grown as rotation crop ? Give two reasons. .
Ans. (i) Pulses are grown as a rotation crop because these have the capacity to fix atmospheric nitrogen in the soil into nitrogenous compound. These help to maintain or . restore soil fertility.
(ii) These need less moisture and survive even in dry conditions.

Q.36. Name the most important pulses producing states of India.
Ans. (a) M. P (b) U. P (c) Rajasthan (d) Maharashtra

Q.37. Which country is the largest producer of sugarcane in the world ?
Ans. Brazil.

Q.38. Which are the major sugarcane producing states of India ?
Ans. U. P, Maharashtra, Karnataka, Tamil Nadu and Andhra Pradesh.

Q.39. Name the by products of sugar industry.
Ans. Jaggery, khandsari and molasses.

Q.40. Which country is the largest producer of oilseeds in the world ?
Ans. India.

Q.41. Name some major oilseeds of India.
Ans. Groundnut, sesamum, rapeseed, mustard and linseed.

Q.42. Which is the most important oilseed of India ? Name the state which is the largest producer of that oil seed.
Ans. Groundnut. Andhra Pradesh is the leading producer.

Q.43. Name a pulse crop which is grown both as a kharif and rabi crop.
Ans. Castor.

Q.44. Name an oilseed which is grown as kharif crop in north and rabi crop in south.
Ans. Sesamum.

Q.45. Name any four plantation crops.
Ans. (a) Rubber (b) Tea (c) Coffee (d) Coconut

Q.46. Name any two important beverage crops of India with major producers.
Ans. Tea – Assam; Coffee – Tamil Nadu

Q.47. "High humidity is good for the cultivation of tea." Why ?
Ans. High humidity helps in the development of tender leaves.

Q.48. Which are the major tea producing states of India ?
Ans. Assam, West Bengal, Tamil Nadu and Kerala.

Q.49. Name a variety of coffee which is produced in India.
Ans. The Arabica variety initially brought from Yemen.

Q.50. What is horticulture ?
Ans. Intensive cultivation of vegetables, fruits and flowers is known as horticulture.

Q.50. Name an equatorial crop which is grown in India.
Ans. Rubber.

Q.51. Name the rubber producing states of India.
Ans. Kerala, Tamil Nadu, Karnataka, and Andaman and Nicobar.

Q.52. Name any four fibre crops of India.
Ans. Cotton, jute, hemp and natural silk are the four major fibre crops of India.

Q.53. What is sericulture ? [CBSE 2014]
Ans. Rearing of silkworms for the production of silk fibre is known as sericulture.

Q.54. Name a fibre crop which is obtained from cocoons of the silkworm.
Ans. Silk.

Q.55. Name two cotton producing states of India. [CBSE 1999]
Ans. Maharashtra, Gujarat.

Q.56. Which region is ideal for'the cultivation of cotton ?
Ans. Black soil region of Deccan Trap is ideal for the cotton cultivation.

Q.57. Name the states which are the leading producers of cotton.
Ans. Maharashtra, Gujarat, Madhya Pradesh and Karnataka.

Q.58. Which fibre is known as the golden fibre ?
Ans. Jute.

Q.59. Name the chief producer of jute in India.
Ans. West Bengal.

Q.60. What is package technology ? What was its result ?
Ans. Under package technology combination or package of many improved methods of cultivation are adopted simultaneously in order to increase agricultural production. This lead to 'Green Revolution'.

Q.62. What is White Revolution ?
Ans. Increase in production of milk is known as white revolution. It is also known as operation flood.

Q.63. Name two schemes introduced by the Government of India for the benefit of the farmers.
Ans. (i) Kissan Credit Card (KCC) were introduced, (ii) Personal Accident Insurance Scheme (PAIS) was also introduced.

Q-64. 'The decline share of agriculture in the GDP is a matter of serious concern'. Give reason.
Ans. Because any decline and stagnation in agriculture will lead to a decline in other spheres of the economy having wider implications for the society.

Q.65. What is Gross Cultivated Area ?
Ans. The net sown area and the land cultivated more than once, together make gross cultivated area.

Q.66. Name any two dry crops ?
Ans. Jawar, bajra.

Q.67. What is dry land farming ?
Ans. It is a type of farming which is practised in scanty rainfall areas and where irrigation facilities are inadequate, e.g., cultivation of jowar and bajra.

Q.68. What is wet land farming ?
Ans. It is a type of farming which is practised in high rainfall and irrigated areas, e.g., cultivation of rice and sugarcane.

Q.69. What is net sown area ?
Ans. The land cultivated in a year is known as net sown area.

Q.70. Name two natural fibres except cotton. [CBSE 1994]
Ans. Jute and flax.

Q.71. Name any four crops which are cultivated under shifting agriculture.
Ans. (a) Maize (b) Millet (c) Vegetables (d) Dry paddy

Q.72. Why shifting agriculture is discouraged ?
Ans. (i) It leads to deforestation.
(ii) The per hectare yield is very low.

Q.73. Which states are the major producers of jute in India ?
Ans. West Bengal, Bihar, Assam, Odisha and Meghalya.

Q.74. Name any three cash crops.
Ans. Rubber, tobacco and cotton.

Q.75. How has climate made our land more valuable from the agricultural point of view ? Give two points.
Ans. (i) Due to wide climatic variations, all kinds of crops can be grown.

Q.76. List two characteristics of Green Revolution.
Ans. (i) Increase in production of wheat and rice, (ii) Use of high yielding varieties of wheat and rice.

Q.77. 'Diversification of agriculture can be helpful for the Indian farmers.' Explain.
Ans. (i) Most of the traditional crops like wheat and rice have very low market value as compare to fruits, medicinal herbs, flowers etc.
(ii) India's diverse climate can be harnessed to grow a wide range of high value crops.
Marks each

(iii) This type of shifting allows nature to replenish the fertility of the soil through natural processes; land productivity in this

HOTS

Q.1. Study the given data carefully and answer the following questions :
Table : INDIA : Growth of GDP and major sectors in (%).

Table : INDIA : Growth of GDP and major sectors in (%).

Sector	2002-07 (Tenth plan projected)	2007-12 (11th plan projected)
Agriculture	1.7	4.1
Industries	8.3	10.5
Services	9.0	9.9
GDP	7.2	9.0

(i)What was the growth rate of India's GDP in 11th Five Year Plan ?
Ans. Growth rate in 2007-12 = 9.
(ii) What was the growth rate in agriculture in the 11th Plan, i.e., 2007-12 ?
Ans. About four per cent.
(iii) Mention any factor responsible for the low growth rate of the per cent agricultural sector.
Ans. (a) The government has reduced the public investment in the agriculture sector, particularly in irrigation, power, rural roads, market and mechanisation.
(b) Subsidy on fertilizers and the inputs has been decreased leading to increase in the cost of production.

Q.2. Study the feature and identify the crop.
(i) (a) It is the staple food crop of a majority of the people of India.
(b) It is grown in North and North-Eastern India.
(ii) (a) It is used both as food and fodder, (b) It is a kharif crop.
(iii) (a) It is a fibre crop.
(b) It grows well on well drained fertile soils in the flood plains.
Ans. (i) Rice (ii) Maize (iii) Jute

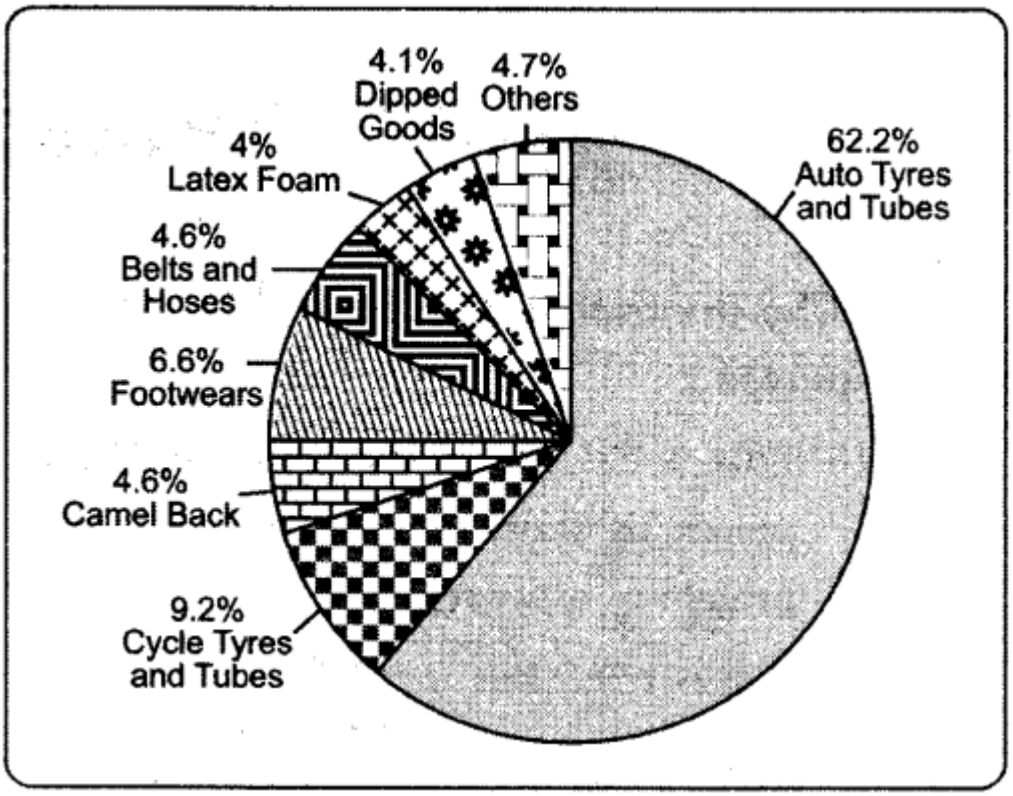
Q.3. (i) Mention the climatic conditions required for the growth of Bajra.
(ii) Mention any four states which are the main producers of this crop.
Ans. Climatic conditions required for the growth of Bajra :
(i) It grows well on sandy soils and shallow black soil.
(ii) It needs dry climatic conditions. Producers : Rajasthan, Uttar Pradesh, Maharashtra, Gujarat and Haryana.

Q.4. Compare the cropping seasons of India.

Rabi	Kharif	
(*i*) Rabi crops are sown in winter from October to December.	Kharif crops are grown with the onset of monsoon in different parts of the country.	These cr between seasons.
(*ii*) These crops are harvested in summer, i.e., April to June.	These crops are harvested in September to October.	These are
(*iii*) Wheat, barley peas, gram and mustard are important crops.	Paddy, maize, jowar, bajra, tur, moong, urd, cotton are important crops.	Waterme cucumber crops are crops.

Q.5. Give an account of oil-seeds in India. State the importance of groundnut and name the states where it is grown. [CBSE 2013]
Ans. (1) (i) India is the largest producer of oil-seeds in the world.
(ii) Different types of oil-seeds are grown covering approximately 12 per cent of the total cropped area of India.
(iii) India is an important producer of groundnut, mustard, coconut, sesamum, soyabean, castor seeds, cotton seeds, linseed and sunflower.
(iv) Most of these are edible and used as cooking medium and some of these are also used as raw materials in the production of soap, cosmetics and ointments.
(2) (i) Groundnut is a kharif crop and accounts for about half of the major oilseeds produced in the country.
(ii) Andhra Pradesh, is the largest producer of groundnut. It is also grown in Tamil Nadu, Karnataka, Gujarat and Maharashtra.

Q.6. Study the given diagram and answer the questions given below : –



(i) Which crop is used for making the goods listed in the diagram ?
(ii) Which types of goods occupy the highest percentage ?
(iii) Mention any one climatic condition required for the growth of this crop.
(iv) Name any two major producing states of this crop. [CBSE 2010]
Ans. (i) Rubber.
(ii) Auto tyres and tubes (62.2%).
(iii) (a) It is grown in tropical and sub-tropical areas.
(b) It requires moist and humid climate with rainfall of more than 200 cm.
(c) Temperature above 25°C.
(iv) Kerala, Tamil Nadu, Karnataka and Andaman & Nicobar Islands.

VBQ

Q.1. Why the Indian fanners should grow more pulses ?
Ans. (i) India is the one of the largest consumer of pulses as these are the major source of protein in a vegetarian diet.
(ii) Pulses need less moisture and can survive even in dry conditions.
(iii) Pulses are leguminous crops as these help in restoring soil fertility by fixing nitrogen from the air.

Q.2. Which fibre crop is known as golden fibre ?s Why is the golden fibre losing its market ? Why the products produced from golden fibre be promoted ?
Ans. Jute is known as golden fibre. Jute products are loosing market because of high cost. Jute products should be promoted because these are eco-friendly.

Q.3. Explain any four factors which have hindered the pace of agricultural development in India.
Ans. (i) Overcrowding in agriculture : The real problem of Indian agriculture is that there are too many people who depend on agriculture. Since 1901, the proportion of people dependent on agriculture has almost remained constant, i.e., 70%.
(ii) Problem of inputs : Indian agriculture suffered because of the inadequacy of finance, seeds, fertilizers, marketing, transportation, etc.
(iii) Size of landholdings : The average size of holding in India is very low, less than 2 hectares or 5 acres. Not only agricultural holdings are small, but they are also fragmented. In certain parts of the country, plots of land have become so small that it is impossible to use modern machinery.
(iv) Over dependence on nature : In spite of the development of sources of irrigation, most of the farmers in large parts of the country still depend upon monsoon and natural fertility in order to carry on their agriculture.

Q.4. "The decline share of agriculture in the GDP is a matter of serious concern". Explain. [CfiSE 2012]
Ans. (i) More than half the population of India's work force is employed by the farm sector.
(ii) Any decline in the share of agriculture means low production of foodgrains this may lead to food shortage.
(iii) Any decline and stagnation in agriculture will lead to a decline in other spheres of the economy having wider implications for society.

Notes

♦ **Agriculture:** The art and science of cultivating soil, raising crops and rearing livestock including fishing and forests.

♦ **Commercial Agriculture:** Farming in which farmer grows the crop with the aim of selling it in the market.

♦ **Cash Crops:** Cash crops are those which are grown by the farmers to sell in the market, e.g., tobacco and cotton.

♦ **Dry Farming:** Dry farming is adopted in scanty rainfall areas. Such types of crops are grown which require less irrigation facilities.

♦ **Extensive Agriculture:** Agriculture in which the agriculturist tries to get the greatest output by bringing more and more new land areas under cultivation.

♦ **Fallow Land:** Leaving the field free without growing a crop for recoupment of soil fertility.

♦ **Green Revolution:** A breakthrough in seed technology which has led to a considerable increase in agricultural production, especially in wheat as a result of better inputs.

♦ **Golden Fibre:** Jute is the Golden Fibre of India as its export brings a lot of foreign exchange.

♦ **Grbss Cultivated Area:** The net sown area and the land cultivated more than once, together make the gross cultivated area.

♦ **Horticulture:** Intensive cultivation of vegetables, fruits and flowers.

♦ **Intensive Agriculture:** Increase in the agricultural production by using scientific methods and better agricultural inputs.

♦ **Kharif Season:** Kharif season starts with the onset of the monsoon i.e., June-July and continues till the beginning of winter i.e., October-November. For example, rice, millets etc.

♦ **Mixed Farming:** Farming in which animals are also used on the farm while raising crops.

♦ **Multiple Cropping:** When two or more than two crops are grown simultaneously on the same field.

♦ **Net Sown Area:** The land cultivated in a year is called the Net Sown Area.

♦ **Plantation Agriculture:** A large-scale farming of one crop resembling the factory production, based on capital investment and application of modem science and technology in cultivating, processing and marketing the final products.

♦ **Rabi Season:** The crops which are grown in winter from October to December and harvested in summer from April to June. Wheat, Barley, Peas, Gram are some examples of rabi crops.

♦ **Sericulture:** Rearing of silkworms and producing raw silk.

♦ **Support Price:** Support price is the minimum and reasonable price fixed by the government at which the farmer can sell his produce either in the open market or to the government agencies.

♦ **Shifting Agriculture:** It is that type of agriculture in which farmers clear the forest land and use it for growing crops. The crops are grown for 2 to 3 years. When the fertility of the soil decreases, the farmer shifts to a new land.

♦ **Subsistence Agriculture:** Farming in which the main production is consumed by the farmer's household.

♦ **White Revolution:** It is also known as 'Operation Flood' and is related to the increase in the production of milk.

♦ **Biotechnology:** Use of biological agents and processes for beneficial purposes is known as biotechnology.

♦ **Zaid Crops:** These are crops which are sown between the rabi and the kharif crops. Watermelon, muskmelon, cucumber and vegetables are some examples of zaid crops.

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Question-1
Distinguish between the following
(a) Ferrous and non-ferrous minerals
(b) Conventional and non-conventional sources of energy.
Solution:
(a)Ferrous Minerals:
Ferrous minerals account for about three fourths of the total value of the production of metallic minerals. They provide a strong base for the development of metallurgical industries. India exports substantial quantities of ferrous minerals after meeting her internal demands.
(b)Non-ferrous Minerals:
India's reserves and production of non- ferrous minerals is not very satisfactory. However, these minerals, which include copper, bauxite, lead, zinc and gold, play a vital role in a number of metallurgical, engineering and electrical industries. Let us study the distribution of copper and bauxite.
Conventional Sources of Energy:
1. Conventional source of energy have been used since the early times.
2. Coal, Petroleum, natural gas, hydro-electricity, thermal power are the source of energy.
3. All conventional sources of energy except hydro-electricity are exhaustible.
4. These source cause environmental pollution.
5. These source require huge capital.
Non-Conventional Sources of Energy:
1. Non- conventional source of energy have came into the use only recently.
2. Wind energy, solar energy, tidal energy, geothermal, biogas are example of these source of energy.
3. Most of the non- conventional sources of energy are inexhaustible.
4. These sources do not cause environmental pollution.
5. Small amount of money is sufficient to have these sources.
Question-2
What is a mineral?
Solution:
Geologists define a mineral as a "homogenous, naturally occurring substance with a definable internal structure." Minerals are found in varied forms in nature, ranging from the hardest diamond to the softest one. Minerals are an indispensable part of our lives. Almost everything we use, from a tiny pin to a towering building or a big ship, all are made from minerals. The railway lines and the tarmac (paving) of the roads, our implements and machinery too are made from minerals. Cars, buses, trains, aeroplanes are manufactured from minerals and run on power resources derived from the earth. Even the food that we eat contains minerals. In all stages of development, human beings have used minerals for their livelihood, decoration, festivities, religious and ceremonial rites.
Question-3

How are minerals formed in igneous and metamorphic rocks?

Solution:

In igneous and metamorphic rocks, minerals may occur in the cracks, crevices, faults or joints. The smaller occurrences are called veins and the larger are called lodes. In most cases, they are formed when minerals in liquid, molten and gaseous forms are forced upward through cavities towards the earth's surface. They cool and solidify as they rise. Major metallic minerals like tin, copper, zinc and lead etc. are obtained from veins and lodes.

Question-4

How do we need to conserve mineral resources?

Solution:

In order to conserve mineral resources, we must see to that our consumption of minerals does not increase our wants. We must remember that these resources are one of the greatest gifts of God and we must use these in such a manner that our future generations also enjoy this gift.

Question-5

Describe the distribution of coal in India.

Solution:

In India coal occurs in rock series of two main geological ages, namely Gondwana, a little over 200 million years in age and in tertiary deposits which are only about 55 million years old. The major resources of Gondwana coal, which are metallurgical coal, are located in Damodar valley (West Bengal-Jharkhand). Jharia, Raniganj, Bokaro are important coalfields. The Godavari, Mahanadi, Son and Wardha valleys also contain coal deposits. Tertiary coals occur in the north eastern states of Meghalaya, Assam, Arunachal Pradesh and Nagaland. Jharkhand is the largest producer where Jharia, Bokaro, karampur , Palamu are the major coal fields. In West Bengal, Raniganj, Jalpaiguri and Darjeeling are the coal fields. Sarguja, Bilaspur, Raigarh and Bastar districts are coal fields found in Chhatisgarh. M.P. has coal fields in Chinaware district and in Maharashtra, Chanda is the main field.

Question-6

Why do you think that solar energy has a bright future in India?

Solution:

Solar energy has bright future in India because

a. India is blessed with plenty of solar energy because most part of the country receive bright monsoon period.

b. India has developed technology to use solar energy for cooking, water heating, space heating, crop drying, etc.

c. It is the abundant, inexhaustible and universal source of energy.

d. India is tropical country.

e. It is pollution free.

Question-7

Describe the impact of globalisation on Indian agriculture.

Solution:

Globalisation is the new trend in the world scenario, which aims at integrating our economy with that of the world:

a. Its aim is to be realised within a certain time frame.

b. It is based on free and open international trade.

c. It ensures that only quality and competitive goods would survive the world market.

Impact

a. Indian farmers now are exposed to new industrial environment. They would have to complete with other farmers of other countries in producing quality and competitive goods.

b. With the use of favourable climatic conditions and soil conditions, improved and new implements, efficient labour we would have to produce goods, which could complete in the world markets.

c. India would need the technologies being used by foreign countries. Infrastructure like development of roads, electricity, irrigation and credit facilities will have to be developed.

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Question-1
What is manufacturing?
Solution:
Production of goods in large quantities after processing from raw materials to more valuable products, is called manufacturing.
Question-2
Name any three physical factors that affect location of the industry.
Solution:
The three factors are
a. Availability of raw materials.
b. Power resources
c. Favourable climate.
Question-3
three human inputs that control location of industries.
Solution:
Human inputs that control location of industries is:
1. Labour,
2. Market and
3. Transport facilities.
Question-4
Name the important raw materials used in the manufacturing of cement?
Solution:
Limestone, silica, alumina and gypsum are the important raw materials used in the manufacturing of cement.
Question-5
How do industries pollute the environment?
Solution:
Industries have increased pollution and degraded environment. Industries create four types of pollution mainly air, water, land and noise.
The smoke emitted by the industry pollutes the air and water immensely. Air pollution is caused by the presence of a higher proportion of undesirable gases such as carbon monoxide and sulphur oxide. Source of water pollution are numerous. Most important are the industrial effluent that discharge into rivers. They are both organic and inorganic. They pollute the water. Unwanted loud noise is also pollution. It arises from industries and the different means of transport. Noise causes impairment to hearing.

Question-6
Discuss the steps to be taken to minimize environmental degradation by industry?
Solution:
Minimizing the use of water for processing by reusing and recycling it, is done in two or more successive stages.
(i) Harvesting of rainwater to meet water requirements.
(ii) Treating hot water and effluents before releasing them into rivers and ponds.
Treatment of industrial effluents can be done in three phases:
(a) Primary treatment by mechanical means.
This involves screening, grinding, flocculation and sedimentation.
(b) Secondary treatment by biological process.
(c) Tertiary treatment by biological, chemical and physical processes. This involves recycling of waste water.

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Question-1
State any three merits of roadways.
Solution:
The growing importance of road transport is rooted in the following reasons:
(a) Construction cost of roads is much lower than that of railway lines,
(b) Roads can traverse dissected and undulating topography and
(c) Roads can negotiate higher gradients of slopes. and as such can traverse mountains such as the Himalayas.
Question-2:
Where and why is rail transport the most convenient means of transportation?
Solution:
Railways make it possible to conduct different activities like business, sightseeing, and pilgrimage along with transportation of goods over longer distances. Apart from an important means of transport the Indian Railways have been a great integrating force for more than 150 years. Railways in India bind the economic life of the country as well as accelerate the development of the industry and agriculture.
Question-3
What is the significance of the border roads?
Solution:
The Roads Organization, (a Government of India undertaking) constructs and maintains roads in the bordering areas of the country. This organization was established in 1960 for the development of the roads of strategic importance in the northern and north-eastern border areas. These roads have improved accessibility in areas of difficult terrain and have helped in the economic development of these areas.

Question-4
What is meant by trade? What is the difference between international and local trade?
Solution:
The exchange of goods among people, states and countries is referred to as trade. The market is the place where such exchanges take place. Trade between two countries is called international trade. It may take place across the sea, air or land. While local trade is carried on in cities, towns and villages, state level trade is carried between two or more states.
Question-5
Why are the means of transportation and communication called the lifelines of a nation and its economy?
Solution:
Today, we are living in the age of communication, using telephone, television, films and Internet. Even books, magazines and newspapers are important means of communication. Various means of transport and communication have reduced distances, bringing the world closer. Modern life is so complex that one has to depend on others. The same is true of the countries as well. No country today can prosper without the
co-operation and assistance of others. This requires movement of goods and materials between countries. Trade provides us with our necessities and also adds to theamenities and comfort of our life. We may also notice that they are rightly called the lifelines of our national economy.
Question-6
Write a note on the changing nature of the international trade in the last fifteen years.
Solution:
India has trade relations with all the major trading blocks and all geographical regions of the world. Among the commodities of export, whose share has been increasing over the last few years till 2004-05 are, agriculture and allied products (2.53 per cent), ores and minerals (9.12 per cent), gems and jewellery (26.75 percent), chemical and allied products (24.45 per cent), engineering goods(35.63 per cent) and petroleum products (86.12 per cent) The commodities imported to India include petroleum, petroleum products (41.87 per cent), pearls, precious stones (29.26 per cent), inorganic chemicals (29.39 per cent), coal, coke, briquettes (94.17 per cent), machinery (12.56 per cent). Bulk imports as a group, registered a growth accounting for 39.09 per cent of total imports. This group includes fertilizers (67.01 per cent), cereals (25.23 per cent), edible oils (7.94 per cent) and newsprint (5.51 per cent). International trade has undergone a sea change in the last fifteen years. Exchange of commodities and goods have been superseded by the exchange of information and knowledge. India has emerged as a software giant at the international level.It is earning large foreign exchange through the export of information technology.