Ch 1 Resources

Excercises

1. Answer the following questions.

(i)   Why are resources distributed unequally over the Earth?

Answer

The distribution of resources depends upon a number of physical factors like terrain, climate and altitude. Since these factors differ so much over the Earth, the distribution of resources is unequal.

(ii) What is resource conservation?

Answer

Using resources carefully and giving them time to get renewed is called resource conservation.

(iii) Why are human resources important?

Answer

People are human resources and human resources are important because people can make the best uses of nature to create more resources by applying knowledge, skill and technology.

(iv) What is sustainable development?

Answer

Balancing the need to use resources and also conserve them for the future is called sustainable development. In other words, carefully utilizing resources so that besides meeting the present requirements it also takes care of the need of future generations is what is known as sustainable development.

2. Tick the correct answer.

(i) Which one of the following does not make a substance a resource? (a) Utility (b) Value (c) Quantity

▶ (c) Quantity

(ii) Which one of the following is a human-made resource?

(a) Medicines to treat cancer

(b) Spring water (c) Tropical forests

▶ (a) Medicines to treat cancer

(iii) Biotic resources are

(a) Derived from living things

(b) Made by human beings

(c) Derived from non-living things

▶ (a) Derived from living things

3. Differentiate between the following.

(a) Potential and actual resources (b) Ubiquitous and localised resources

Answer

Potential resource	Actual resource
A resource whose entire quantity is not known	A resource whose quantity is known

Not being used at present, but could be used in the future	Being used in the present
The present level of technology is not advanced enough to utilise it	The present level of technology is advanced enough to utilise it
Example: The uranium found in Ladakh, which could be used in the future	Example: The dark soils of the Deccan plateau in Maharashtra

Ubiquitous resource	Localised resource
A resource which is found everywhere	A resource which is found only in certain places
Example: The air we breathe	Example: Copper

Ch 2 Land, Soil, Water, Natural Vegetation and Wildlife Resources

Exercises

1. Answer the following questions.

(i) Which are the two main climatic factors responsible for soil formation?

Answer

Temperature and rainfall are the two main climatic factors responsible for soil formation.

(ii) Write any two reasons for land degradation today.

Answer

Deforestation and the indiscriminate use of chemical pesticides and fertilisers in agricultural lands are two factors contributing to land degradation.

(iii) Why is land considered an important resource?

Answer

Land is considered as an important resource as it provides habitation to a wide variety of flora and fauna. Also used by Human beings for various purposes such as agriculture, forestry, mining, building houses and roads, and setting up industries.

(iv) Name any two steps that government has taken to conserve plants and animals.

Answer

Two steps that the government has taken to conserve plants and animals: → Has set up national parks, wildlife sanctuaries and biosphere reserves for protecting natural vegetation

and wildlife; for example, the Kaziranga National Park in Assam. → Has banned the killing of lions, tigers, deer, great Indian bustards and peacocks. It has also prohibited the trade of the species of plants and animals protected under the international agreement CITES.

(v) Suggest three ways to conserve water.

Answer

Three ways to conserve water: → Rainwater harvesting.

→ Lining irrigation canals to avoid seepage of water. → Replenishing ground water by promoting afforestation.

2. Tick the correct answer.

(i) Which one of the following is nota factor of soil formation?
(a) Time
(b) Soil texture (c)
    Organic matter
▶ (b) Soil texture

(ii) Which one of the following methods is most appropriate to check soil erosion on steep slopes? (a) Shelter belts (b) Mulching (c) Terrace cultivation
▶ (c) Terrace cultivation

(iii) Which one of the following is not in favour of the conservation of nature?
(a) Switch off the bulb when not in use (b) Close the tap immediately after using
(c) Dispose polypacks after shopping
▶ (c) Dispose polypacks after shopping

3. Match the following.

(i) Land use	(a) Prevent soil erosion
(ii) Humus	(b) Land suitable for agriculture
(iii) Rock dams	(c) Productive use of land
(iv) Arable land	(d) Organic matter deposited on top soil
	(e) Contour ploughing

Answer

(i) Land use	(c) Productive use of land
(ii) Humus	(d) Organic matter deposited on top soil
(iii) Rock dams	(a) Prevent soil erosion
(iv) Arable land	(b) Land suitable for agriculture

4. State whether the given statements are true or false. If true, write the reasons.

(i)   Ganga-Brahmaputra plain of India is an overpopulated region.

(ii)   Water availability per person in India is declining.

(iii) Rows of trees planted in the coastal areas to check the wind movement is called intercropping.

(iv) Human interference and changes of climate can maintain the ecosystem.

Answer

(i) This statement is true. Plains and river valleys offer suitable land for agriculture. Hence, these are densely-populated areas of the world.

(ii)   This statement is true. Though water is present in abundance, fresh water is a scarce resource. Water availability is a serious problem in many regions of the world. Due to the

wastage of water, deforestation, and the pollution and depletion of fresh water reserves (such as rivers and ground water), the availability of water is fast declining.

(iii)   This statement is false. The described process is called shelter belts. Intercropping is the process in which different crops are grown in alternate rows, and are sown at different times to protect the soil from rain wash.

(iv)   This statement is false. Human interferences and climatic changes for the most part adversely affect the balance of the ecosystem.

Ch 3 Mineral and Power Resources

Excercises

1. Answer the following questions.

(i)   Name any three common minerals used by you everyday.

Answer

Salt, Gold and Copper are three common minerals used everyday

(ii)   What is an ore? Where are the ores of metallic minerals generally located?

Answer

Rocks from which minerals are mined are known as ores. For any material to be called ore of any mineral, it must contain minimum adequate quantity of that mineral so that it can be extracted profitably.

(iii) Name two regions rich in natural gas resources.

Answer

Russia and Norway are the two regions rich in natural gas resources.

(iv) Which sources of energy would you suggest for

(a) Rural areas
(b) Coastal areas
(c) Arid regions

Answer

(a) Biogas energy for rural areas

(b) Hydel and tidal energy for coastal areas

    (c) Wind and solar energy for arid regions

(v) Give five ways in which you can save energy at home.

Answer

Five ways in which energy can be saved at home:

→ Switching off lights, fans and other electrical appliances when not in use → By seeing to it that electrical devices are operating efficiently; for example, defrosting refrigerator regularly and not keeping the refrigerator door open for longer than necessary

→ Using energy-efficient devices such as fluorescent bulbs and tubes

→ Using energy efficiently while cooking; for example, keeping the lids of pans on while cooking → Unplugging electrical devices when not in use prevents leakage of electricity; thus saving energy.

2. Tick the correct answer.

(i) Which one of the following is nota characteristic of minerals?

(a) They are created by natural processes.

(b) They have a definite chemical composition.

(c) They are inexhaustible. (d) Their distribution is uneven. ► (c) They are inexhaustible.

(ii) Which one of the following is nota producer of mica?

(a) Jharkhand

(b) Karnataka

(c) Rajasthan (d) Andhra Pradesh

► (b) Karnataka

(iii) Which one of the following is a leading producer of copper in the world? (a) Bolivia

(b) Ghana

(c) Chile

(d) Zimbabwe

► (c) Chile

(iv) Which one of the following practises will not conserve LPG in your kitchen?

(a) Soaking the dal for some time before cooking it.

(b) Cooking food in a pressure cooker.

(c) Keeping the vegetables chopped before lighting the gas for cooking. (d) Cooking food in an open pan kept on low flame.

► (d) Cooking food in an open pan kept on low flame.

3. Give reasons.

(i)   Environmental aspects must be carefully looked into before building huge dams.

Answer

Environmental aspects must be carefully looked into before building huge dams because of the following reasons -

→ Dams create imbalance in the earth's equilibrium.

→. Deforestation leads to environmental pollution.

→ People become displaced.

→ Cities / villages / towns may require shifting causing lot of hardships for the people.

→ Flood threats loom large.

→ Earthquake threats

→ Silting of lakes is a problem.

(ii)   Most industries are concentrated around coal mines.

Answer

Coal is used as a source of energy and power and also as a raw material in most of the industries. Hence most industries are concentrated around coal mines of the purpose saving cost of transportation of coal (cost effectiveness).

(iii)   Petroleum is referred to as "black gold".

Answer

Petroleum is referred to as "black gold" because it is black in colour in the crude form and its derivatives are extremely valuable as petroleum itself. Today it is almost inevitable in our day-to-day life. A variety of products like – kerosene, diesel, petrol, wax, plastics, lubricants etc. are produced from these mineral resources.

(iv) Quarrying can become a major environmental concern.

Answer

Quarrying can become a major environmental concern because of the following reasons:

→ It may destroy the humus of soil which is much required for the growth of plants and crops.
→It produces a lot of noise pollution due to use of explosives at times in order to break the huge chunks of rocks.

→ In the process of quarrying lot of dust is generated which causes air pollution and also occupational hazards.

→ Blasting done in the process of quarrying generate vibration which damage in the nearby buildings, dams or any other similar structure.

4. Distinguish between the following.

(i) Conventional and non-conventional sources of energy

Conventional sources of energy	Non-conventional sources of energy
Have been in common use for a long time	Are not commonly used
Are generally exhaustible	Are generally inexhaustible
Are mostly polluting	Are mostly non-polluting
Example: Firewood, coal	Example: Solar energy, nuclear energy

(ii) Biogas and natural gas

Biogas	Natural gas
Formed using organic wastes such as dead plant and animal matter, animal dung and kitchen waste	Found along with petroleum deposits and gets released when crude oil is brought to the surface
Is a non-conventional source of energy	Is a conventional source of energy
Is easily available, especially in rural areas	Is not easily available; very few countries have sufficient natural gas reserves of their own
Is polluting; causes greenhouse effect as it releases carbon dioxide	Is a cleaner fuel
Used as a domestic fuel for cooking and lighting	Used as a domestic fuel as well as an industrial fuel

(iii) Ferrous and non-ferrous minerals

Ferrous mineral	Non-ferrous mineral
A metallic mineral that contains iron	A metallic mineral that does not contain iron
Example: Iron ore, manganese	Example: Gold, silver

(iv) Metallic and non-metallic minerals

Metallic mineral	Non-metallic mineral
A mineral containing metal in raw form	A mineral not containing metal

Example: Bauxite, iron ore	Example: Limestone, gypsum

Ch 4 Agriculture

Excercises

1. Answer the following questions.

(i) What is agriculture?

Answer

Agriculture is the primary activity which includes growing of crops, fruits, vegetables, flowers and rearing of livestock. It is also known as farming. (ii) Name the factors influencing agriculture.

Answer

Various factors influencing agriculture are - Favourable topography, Soil and Climate.

(iii)   What is shifting cultivation? What are its disadvantages?

Answer

Shifting cultivation or slash-and-burn cultivation is a type of farming activity which involves clearing a plot of land by felling trees, burning the felled trees, mixing the ashes with soil, and then growing crops like maize, yam, potatoes and cassava on the cleared land. After the soil loses its fertility, the land is abandoned and the cultivator moves on to a new plot.

This type of farming has the following disadvantages.

→ Deforestation

→ After some time the land loses its fertility.

→ Soil erosion.

→ Small patches of cultivation which is insufficient for feeding a large population.

Answer

Plantation agriculture is a type of commercial farming where a single crop of tea, coffee, sugarcane, cashew, rubber, banana or cotton is grown. Large amount of labour and capital is required in this type of farming. The produce is either processed on the farm itself or in nearby factories. Major plantations are found in the tropical regions of the world, like rubber in Malaysia, coffee in Brazil, tea in India and Sri Lanka, etc.

(v)   Name the fibre crops and name the climatic conditions required for their growth.

Answer

Jute & cotton are known as fiber crops. The climatic conditions required for their growth are:

→ Jute (Golden Fiber): High temperature more than 25°C, heavy rainfall, warm and humid climate.

→ Cotton: High temperature around 30 - 40°C, low rainfall and most importantly 210 frost-free days and bright sunshine. Means lot of cloud-free sunny days is essential for cotton growing.

2. Tick the correct answer.

(i) Horticulture means
(a) Growing of fruits and vegetables
(b) Primitive farming
(c) Growing of wheat
► (a) Growing of fruits and vegetables

(ii) Golden fibre refers to
(a) Tea
(b) Cotton

► (c) Jute

(iii) Leading producer of coffee

(a) Brazil

(b) India

(c)

Russia

► (a) Brazil

3. Give reasons.

(i) In India agriculture is a primary activity.

Answer

Two-third of India's population is dependent upon agriculture. Hence, in India, agriculture is a primary activity.

(ii) Different crops are grown in different regions.

Answer

Different crops are grown in different regions because growing of crops depends upon the geographical conditions, demand of produce, labour and level of technology. Favourable topography of soil, climates also play an important role in selection of crops to be grown in that area.

4. Distinguish between the following.

(i) Primary activities and tertiary activities

Primary activities	Tertiary activities
Connected with the extraction and production of natural resources	Provide support to the primary and secondary sectors
Example: Agriculture, fishing	Example: Services such as banking and transport

(ii) Subsistence farming and intensive farming

Subsistence farming	Intensive farming
Practised to meet the needs of the farmer's family; involves the use of low levels of technology and household labour for producing a small output	A type of subsistence farming; involves the annual cultivation of a small plot of land using simple tools and more labour

Ch 5 Industries

Excercises

1. Answer the following questions.

(i)   What is meant by the term 'industry'?

Answer

The term 'industry' refers to an economic activity that is concerned with the production of goods (e.g., iron and steel industry), extraction of minerals (e.g., coal mining industry) or provision of services (e.g., tourism industry).

(ii) What are the main factors which influence the location of an industry?

Answer

Factors influencing the location of an industry:

→ Availability of raw material

→ Availability of land

→ Adequate supply of water

→ Adequate supply of labour

→ Access to power

→ Amount of capital

→ Access to transport

→Presence of market

(iii) Which industry is often referred to as the backbone of modern industry and why?

Answer

Iron and steel industry is often referred to as the backbone of the modern industry because almost everything is either made from iron or steel or has been made using tools and machineries of these metals. There are plenty of examples like -ships, trains, vehicles; all are made largely of steel. Materials of our day-to-day use starting safety pin to our building in which we live, are made from steel. Without the use of iron no industry can run.

(iv) Why cotton textile industry rapidly expanded in Mumbai?

Answer

Cotton textile rapidly expanded in Mumbai because its warm, moist climate, facility of port for importing of machinery and above all the easy availability of skilled labour.

(v)   What are the similarities between information technology industry in Bangalore and California?

Answer

Similarities between information technology industry in Bangalore and California: → Presence of high quality educational institutions, and advanced scientific and technological centres → Pleasant climate and clean environment.

→ Presence of good quality, skilled workforce.

→ Access to markets.

→ Well-developed and well-connected.

2. Tick the correct answer.

(i) Silicon Valley is located in
(a) Bangalore

(b) California
(c)
Ahmedabad

▶ (b) California

(ii) Which one of the following industries is known as sunrise industry?

(a) Iron and steel industry

(b) Cotton textile   (c)
Information technology

▶ (c) Information technology

(iii) Which one of the following is a natural fibre?

(a) Nylon

(b) Jute
(c)
Acrylic

▶ (b) Jute

3. Distinguish between the following

(i) Agro-based and mineral-based industry

Agro-based industry	Mineral-based industry
Uses plant and animal products as raw materials	Uses mineral ores as raw materials
Source of employment for people in rural areas	Source of employment for people in rural as well as urban areas
Example: Dairy industry, cotton textile industry	Example: Iron and steel industry, heavy machinery industry

(ii) Public-sector and joint-sector industry

Public-sector industry	Joint-sector industry
Owned and operated by the government	Jointly owned and operated by the government and individuals or a group of individuals
Example: Hindustan Aeronautics Limited, Steel Authority of India Limited	Example: Maruti Udyog Limited

4. Give two examples of the following in the space provided.

(i) Raw materials: _____ and _____
(ii) End product: _____ and _____ (iii)
    Tertiary activities: _____ and _____ (iv)
    Agro-based industries: _____ and _____
(v) Cottage industries: _____ and _____
(vi) Co-operatives: _____ and _____

Answer

(i)Raw materials: cotton and steel

(ii)End product: shirt and safety pin

(iii)Tertiary activities: banking and transport

(iv)Agro-based industries: dairy industry and cotton textile industry

(v)Cottage industries: pottery industry and basket-weaving industry (vi)Co-operatives: Anand Milk Union Limited and Sudha Dairy

Ch 6 Human Resources

1. Answer the following questions.

(i) Why are people considered a resource?

Answer

People are considered a resource because with their demands and capabilities they can create new resources. Nature's bounty becomes important only when people find it and make it useful for them. Hence, human resource is also considered an important and potential resource for the society.

(ii) What are the causes for the uneven distribution of population in the world?

Answer

The distribution of population in the world is uneven - some areas are very crowded while some are sparsely populated. There are various reasons behind uneven distribution:

→ Geographical factors: Favourable topography, availability of mineral and fresh water resources, favourable climate and soil fertility are some of the reasons affecting population distribution e.g., Indo Gangetic Plains, Diamond Mines of South Africa etc are densely populated.

→ Social and Cultural factors: Areas of better housing, education and health facilities are more populated. Places of religious and cultural significance also attract people e.g., Varanasi, Jerusalem etc.

→ Economic factors: Places having more industries, transportation and communication facilities provide better employment opportunities. People are attracted to these places because of the above reasons e.g., Mumbai, Osaka etc.

(iii) The world population has grown very rapidly. Why?

Answer

The world population has grown very rapidly because the death rate has gone down as a result of the growth of food supplies and the improvement of medical facilities. Also, unlike the death rate, the birth rate has remained quite high.

(iv) Discuss the role of any two factors influencing population change.

Answer

The birth rate and the death rate are two factors that influence population change. The birth rate is the number of live births per 1000 people while the death rate is the number of deaths per 1000 people. These are the natural causes of population change. When the birth rate is higher than the death rate, population increases. When the death rate is more than the birth rate, population decreases. When the two rates are equal, the population remains constant. Thus, the birth and death rates affect the balance of population.

(v) What is meant by population composition?

Answer

Population composition refers to the structure of the population. Population composition helps to know the number of males or female, their age-groups, literacy, their occupation, their income level and health conditions etc.

(vi) What are population pyramids? How do they help in understanding about the population of a country?

Answer

The graphical illustration that is used for studying the population composition of a country is called population pyramids. It shows the present number of males and females in a country along with their age groups. The age-group distribution of population tells us the number of dependents and the number of economically active individuals present in the population.

2. Tick the correct answer.

(i) Which does the term population distribution refer to?

(a) How population in a specified area changes over time.

(b) The number of people who die in relation to the number of people born in a specified area.

(c) The way in which people are spread across a given area.

▶ (c) The way in which people are spread across a given area.

(ii) Which are three main factors that cause population change?

(a) Births, deaths and marriage

(b) Births, deaths and migration (c)
    Births, deaths and life expectancy

▶ (b) Births, deaths and migration

(iii) In 1999, the world population reached

(a) 1 billion

(b) 3 billion

(c) 6 billion

▶ (c) 6 billion

(iv) What is a population pyramid?

(a) A graphical presentation of the age, sex composition of a population. (b) When the population density of an area is so high that people live in tall buildings. (c) Pattern of population

▶ (a) A graphical presentation of the age, sex composition of a population.

3. Complete the sentences below using some of the following words.

sparsely, favourable, fallow, artificial, fertile, natural, extreme, densely

When people are attracted to an area it becomes _____ populated. Factors that influence this include _____ climate; good supplies of _____ resources and _____ land.

Answer

When people are attracted to an area it becomes densely populated. Factors that influence this include <u>favourable</u> climate; good supplies of <u>natural</u> resources and <u>fertile</u> land.