

CLASS: 8TH Chapter 1 RESOURCES

TERMINOLOGY

Resource: A source or supply from which benefit is produced.

Biotic resources: A resource which continues to reproduce and regenerate its population. e.g fish.

Abiotic resource: A resource consisting of non living things e.g coal and petroleum. etc.

Recycling: Recycling is a process by which wastes of natural and manufactured substances or goods are broken down and then reconstituted into useful material.

Exhaustible Resources: Those resources which can not be replaced once they are used.e.g Coal, Natural gas.

Inexhaustible Resources: Those resources which can be renewed by reproduction or by physiochemical process. E.g Sunshine, water, soil etc

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

Human Resource Development: means improving the quality of peoples skills so that they are able to create more resources is known as human resource development.

Fossil Fuels: Coal, petroleum, and natural gas which are made after natural processing of plants and animals inside in the earths surface.

(TEXTUAL QUESTIONS)

Q.1 What do you mean by the term resources?

Ans. A resource is defined simply a material present in our environment that can satisfy our need and have utility and/or value. Technically speaking, a resource is defined as any material that can be processed and transformed in a way that it becomes more usable and more valuable, provided it is technologically

accessible, economically feasible and culturally acceptable. Examples are; Iron, ore, Forests, cotton, animals, human being, land, air, petroleum, coal etc.

Q.2 What is resource conservation?

Ans. Conservation of a resource is defined as the judicious management of a resource in such a manner so that it benefits to the largest number of people for the longest possible time without harming the natural or ecological balance.

Q.3 Why is the conservation of resources necessary?

Ans. Conservation of resources is necessary because of the following reasons;

- (a) Conservation aims at sustainable development i.e careful utilization of resources so that it yields sustainable benefit to the present generation while maintaining its potential to meet the needs and aspirations of the future generations.
- (b) Over utilization of resources creates socio-economic problems whereas the conservation of resources leads to economic development, as the economic prosperity of a country depends primarily upon the amount of resources available to it.
- (c) Overutilization of resources may lead to environmental problems whereas the conservation of resources sustain the environment.

Q.4 Why are resources distributed unequally over the earth?

Ans. The distribution of most of the natural resources depends upon number of physical factors such as terrain, climate and altitude. As these factors differ widely over the earth thus the distribution of resources also differs widely and are hence distributed unequally over the earth's surface. Although some resources called ubiquitous resources are found everywhere such as air, water but most of the resources are localized such as copper, iron ore. Moreover the distribution of mineral resources over the earth's surface is the outcome of the geological lottery.

Q.5 What is sustainable development?

Ans. Sustainable development is defined as the careful utilization of resources so that it yields sustainable benefits to the present generation while maintaining its potential to meet the needs and aspirations of the future generations. Conservation of resources aims at sustainable development which stresses upon utilization of resources and balancing the need to use resources for the maximum benefit to the present generations.

The main principles of sustainable development are:

- (i) Improvement in the quality of human life.
- ii) Conserve the earth's vitality, diversity and sustenance of environment.
- iii) Minimize the depletion of natural resources and care for all forms of life.

(ADDITIONAL QUESTIONS)

Q.6 Describe the classification of natural resources based upon level of development?

Ans. The natural resources are classified into two types based upon the level of development which are described as:

(a) **Actual resources:** These are the resources which have been surveyed and their quantity and quality have been determined for human utilization. These resources are being used at present under existing technology and the level of their feasibility. These resources are also called developed resources. The rich deposits of coal in India (2,45,847 million tones) petroleum in West Aisa, the dark soils of the Deccan plateau in Maharashtra are the examples of actual resources.

(b) **Potential Resources:** The resources which are found in the environment and have the potential to satisfy the human needs but could not be used due to lack of appropriate technology, or capital or other reasons. These resources are not used presently and their quantity may not be known, but these could be used in future and

are included as stock. The uranium and geothermal energy is. Ladakh are examples of potential resource, which could be used in future. High speed winds were potential resources two hundred years ago. Today they are an actual resource and wind-farms generate energy using high speed winds like in Netherlands, Nagercoil in Tamil Nadu and on the Gujrat coast.

Besides the above, sometimes third category of resources called reserves are also included in the classification. Reserves are the resources that can be put into use with the existing technology, but their uses have been postponed keeping in consideration the needs of future generations. For example Forest resources in India.

Q.7 Describe the classification of resources based upon their origin?

Ans. Based upon origin, the natural resources are classified into two types:

- (i) **Abiotic resources**: The resources that have their origin from non-living things and do not posses life are called abiotic resources. Examples of these resources include soils, rocks, minerals etc. These resources are usually composed of inorganic materials.
- (ii) **Biotic Resources**:- The resources that directly have their origin from living organisms and usually posses life are called biotic resources. Examples of these resources include plants, animals, fungi, bacteria, etc. These resources are composed of organic materials.

Q.8 Describe the classification of resources based upon their distribution?

Ans. Based upon the distribution, the natural resources are classified into ubiquitous resources and localized resources.

- (i) **Ubiquitous resources**: These are the resources that are found everywhere over the planet area such as air, water in the form of

humidity, soil etc. These resources are also called omnipresent resources.

- (ii) **Localized:** These are the resources that are found only in certain places over the planet earth. Examples of these resources are Iron ore, Copper ore, Aluminum ore etc.

Q.9 Describe the classification of resources based upon their continual utility?

Ans. Based upon continual utility, the natural resources are classified into renewable and non-renewable resources.

(i) **Renewable resources:** The resources which get renewed or replenished quickly. Some of these are unlimited and are not affected by human activities such as solar and wind energy. Yet careless use of certain renewable resources like water, soil and forest can affect their stock.

Renewable resources are further classified into two types;

- (a) **Exhaustible resources:** Such renewable resources which if over-exploited i.e used on a large scale, fall short in supply temporarily or permanently are called exhaustible resources. Examples are ground water, wildlife, Forest etc.

- (b) **Inexhaustible resources:** Such renewable resources which even if over-exploited i.e used on a large scale do not fall short in supply are called in-exhaustible resources. Examples are surface water, soil, wind, solar energy etc.

(i) **Non-renewable resources:** Those resources which have a limited stock. Once the stocks are exhausted it may take thousands of years to be renewed or replenished. Coal, petroleum and natural gas are some examples of non-renewable resources.

Q.10 Why are human resources important?

Ans. Human beings are the most important resources in the world. It is primarily because of man who evaluates any material as resource by modifying, processing and transforming it. Man can make the best use of nature to create more and more resources by

his knowledge, skill and technology. Education and health help the man in improving quality of his skills to enable him to create more and more resources. The most important factor to make any material as resource is technology and man is the only creature to invent and develop technology.

Q.11 Differentiate between potential and actual resources:

Ans.

Potential resources	Actual resources
<ol style="list-style-type: none">1. These are the resources that have the potential to satisfy the human needs but are not used presently due to lack of appropriate technology or capital or other reasons.2. These resources usually have not been surveyed quantitatively.3. Presently these resources do not contribute to the economy of country.4. These resources can prove beneficial to the country in future.5. Uranium in Ladakh is an example of potential resources.	<ol style="list-style-type: none">(a) These are the resources that are used prudently with the help of existing technology.(b) These resources have been surveyed quantitatively.(c) These resources presently contribute to the economy of country.(d) These resources may or may not be available to the country in future.(e) Petroleum reserves in West Asia is an example of actual resources.

Q.12 Differentiate between ubiquitous and Localized Resources.

Ubiquitous Resources

Localized Resources

- | | |
|---|---|
| <ul style="list-style-type: none">• These are the resources that are present everywhere on the planet earth and are also called omnipresent resources.• These resources usually are the free gifts of nature and usually need not to be processed.• The examples of these resources are, Water, Soil, Air and bacteria etc. | <ul style="list-style-type: none">• These are the resources that are confined to certain regions on the planet earth.• These resources usually are costly and usually are not readily available.• The examples of these resources are. Iron ore, Copper ore, Petroleum, Coal etc. |
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Land, Water, Soil Natural Vegetation and Wildlife

CHAPTER ;2

MAIN POINTS TO REMEMBER

Conservation: Conservation is the preservation or efficient use of resources.

Soil Erosion: The removal of soil, especially top soil either naturally or as a result of human activity.

Weathering: The breaking up and decay of exposed rocks by temperature changes, plants, animals etc.

Land Use: The use of land for different purposes like agriculture, roads etc

Shelter Belts: The planting of rows of trees to check the wind movement to protect the soil.

Terrace Farming: Broad flat steps or terraces are made on the steep slopes so that flat surfaces are available to grow crops. They reduce surface runoff and soil erosion.

Biodiversity Hotspot: A biodiversity hotspot is a biogeographic region that is both a significant reservoir of biodiversity and is threatened with destruction. India has four biodiversity hotspots: The Himalayas, the Western Ghats, the indo-Burma region and the sundaland (includes nicobar group of islands)

Ecosystem: An ecosystem is a large community of living organisms(plants, animals and microbes) in a particular area. The living and the physical components are linked together through nutrient cycles and energy flows.

National park: is a large area of land preserved in its natural state as public property and there are laws that protect the wildlife. There are 104 national parks in India. Periyar national park in Kerala, Kanha national park in Madhya Pradesh, Kaziranga national park in Assam are some examples

Wildlife sanctuary: is a vast area set aside by the state to protect characteristic wildlife, especially migratory bird communities or to protect threatened animal or plant species. All forms of hunting, killing or capturing of wildlife are prohibited except for scientific research authorized by the government. There are 551 wildlife sanctuaries in India.

Wildlife: Wildlife refers to all the non domesticated animals found in an area. It comprises of all the types of animals like mammals, reptiles, amphibians, birds and insects.

Alpine vegetation: Alpine plants are plants that grow in an alpine climate which occurs at high elevation and above the tree line. Alpine vegetation consists of grasses and bushes.

Treeline: The zone at high altitudes or high latitudes beyond which no trees grow.

(TEXTUAL QUESTIONS)

Q.1) Which are the two main climatic factors of soil formation?

Ans) The two main climatic factors of soil formation are temperature and rainfall. Consequently soil displays a wide variety of physical and chemical characteristics. In India soil formation is mainly related to the parent rock material, surface relief, climate and natural vegetation.

Q.2) Write any two reasons for land degradation now a days?

Ans) The two reasons for land degradation now-a-days are deforestation and overuse of chemical fertilizers or pesticides.

Q.3) Why is land considered as an important resource?

Ans) Land is considered as an important resource because it is used for different purposes such as agriculture, forestry, mining, building houses, roads and setting up of industries.

Q.4) What steps has the govt. taken to conserve plants and animals?

Ans) Govt. has taken many steps to conserve plants and animals. Some of the important steps are given below:

- National parks, wild life sanctuaries and biosphere reserves are made to protect our natural vegetation and wild animals.
- Awareness programmes like social forestry and Vanamohotrasava have been encouraged by govt. at regional and community level.
- Govt. passed laws declaring trading as well as killing of birds and animals illegal.
- An international convention CITES have been established that lists species of animals and birds whose trade is prohibited.

Q.5) Suggest three ways to conserve water?

Ans) Following are the three ways to conserve water:

- Suitable treatment of industrial effluents before releasing them into water bodies.
- Forest and other vegetation cover slow down the surface runoff and replenish underground water.
- Water harvesting is another method to conserve water.
- Rain water harvesting.

Awareness programmes to stop wastage of water and throwing away garbage in water bodies.

Q no.6 What is a biosphere reserve? give two examples

Ans: Biosphere reserves are specially protected areas on very large scale. Biosphere reserves are representative parts of natural and cultural landscape extending over large areas of terrestrial or coastal / marine ecosystems or a combination thereof. The purpose of developing biosphere reserves is to promote environmental research and to conserve plant and animal species in their respective ecosystems. In India there are 18 biosphere reserves. Examples are Nanda Devi Biosphere Reserve in Uttarakhand and Simlipal Biosphere Reserve in Odisha

Additional questions

Q.1) What is land use? What are physical and human factors of land use?

Ans) Land is used for different purposes such as agriculture, forestry, mining etc. This is commonly termed as land use. The use of the land is determined by physical factors such as topography, soil, climate minerals and availability of water. Human factors such as population and technology are also important determinants of land use pattern.

Q.2) What is soil?

Ans) The thin layer of grainy substance covering the surface of the earth's crust is called soil. It is made up of organic matter (humus), minerals and weathered rocks found on the earth.

Q.3) What are factors of soil formation?

Ans) The major factors of soil formation are the nature of the parent rock; temperature and rainfall. Other factors are the topography, role of organic material and time taken for the composition of soil formation. All these differ from place to place.

Q.4) What is soil degradation and what are its factors?

Ans) Soil degradation is the decline in soil quality caused by its improper use, usually for agricultural, pastoral, industrial or urban purposes. Factors which lead to soil degradation are deforestation, overgrazing, over use of chemicals, rain wash, landslides and floods.

Q.5) What are methods of soil conservation?

Ans) Some important methods of soil conservation are:

- a) **Mulching:** The bare ground between plants is covered with a layer of organic matter like straw. It helps to retain soil moisture.

- b) Contour barriers:** Stones, grass, soil etc are used to build barriers along contours. Trenches are made in front of the barriers to collect water.
- c) Rock dam:** Rocks are piled up to slow down the flow of water. This prevents formation of gullies and further soil loss.
- d) Terrace farming:** These are made on the steep slopes so that flat surfaces are available to grow crops. They can reduce surface run-off and soil erosion.
- e) Contour ploughing:** Ploughing parallel to the contours of a hill slope to form a natural barrier for water to flow down the slope.

Q.6) Define biosphere?

Ans) Natural vegetation and wild life exists only in a narrow zone of contact between the lithosphere, hydrosphere and atmosphere that we call biosphere.

Q.7) What is ecosystem?

Ans) In the biosphere living beings are inter-related and inter-dependant on each other for survival. This life supporting system is known as ecosystem.

Q.8) What are the uses of forests?

Ans) Plants provide us timber, give shelter to animals, produce oxygen we breathe, protect soils so essential for growing crops, acts as shelter belts, help in storage of ground water, give us fruits, nuts, latex, turpentine oil, gum, medicinal plants and also paper.

Q.9) What is a national park?

Ans) A natural area designated to protect the ecological integrity of one or more ecosystems for present and further generations.

Q.10) What is a biosphere reserve?

Ans) It is a series of protected areas linked through a global network, intended to demonstrate the relationship between conservation and development.

Q.11) What is weathering?

Ans) The breaking up and decay of exposed rocks, by temperature changes, frost action, plants, animals and human activity.

Q.12) What is CITES?

Ans) CITES (The convention on international trade in endangered species of wild fauna and flora) is an international agreement between governments to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

Q.13) What are landslides?

Ans) Landslides are simply defined as the mass movement of rock, debris, earth down a slope. They often take place in conjunction with earthquakes, floods and volcanoes. A prolonged spell of rainfall can cause heavy landslide.

Q.14) What are common property resources?

Ans) The land owned by the community for common uses like collection of fodder, fruits, nuts or medicinal herbs is known as community land or common property resources.

Q.15) What are evergreen and deciduous forests?

Ans) Those forests which do not shed their leaves simultaneously in any season of the year are called evergreen forests. Deciduous are those forests which shed their leaves in a particular season to conserve loss of moisture through transpiration.

Q.16) Write a short note on J & K's wild life?

Ans) J & K with its varied regions and diverse climates and vegetation is home to many birds and endangered animals; such as Snow Leopard, Hangul, Bear, Ibex Markhor and Bacterian Camel. In the hilly regions of Jammu, there is a large and varied fauna including Leopard, Cheetah, Deer, Wild Sheep, Bear-, Brown Musk, and Rat.

Q.17) What is rain water harvesting?

Ans) It is a process of collecting rain water from roof tops and directing it to an appropriate location and storing it for future use.

Facts

- ❖ Earth is also known as water planet.
- ❖ Oceans cover 70% of earth's surface.
- ❖ 97.3% of water available on surface of earth is saline and not fit for human consumption.
- ❖ Fresh water only accounts for 2.7%.
- ❖ In 1975, the consumption of water for human use was 3850 cu km/year. It soared to more than 6000 cu km/year in the year 2000.
- ❖ A dripping tap wastes 1200 litres in a year.
- ❖ An average Indian in urban areas uses about 135 liters of water every day.
- ❖ It takes hundreds of years to make just one centimeter of soil

Mineral And Power Resources

MAIN POINTS TO REMEMBER

Mineral: A natural compound which is uniform in chemical composition and atomic structure and is found in the rocks of earth.

Ore: A naturally occurring deposit which contains a mineral in sufficient concentration for commercial use.

Geo thermal energy: Geo thermal energy refers to the heat and electricity produced by using the heat from the interior of the earth.

Energy resources: Resources like coal and petroleum which produce energy when burnt.

Mining: The process of taking out minerals from rocks buried under the earth's surface is called mining.

Open cast mining: Minerals that lie at shallow depths are taken out by removing the surface layer, this is known as open cast mining.

Shaft mining: Deep bores called shafts have to be made to reach mineral deposits that lie at greater depths, this is known as shaft mining.

Quarrying: Minerals that lie near the surface are simply dug out, by the process known as quarrying.

Fossils: The decomposed creatures, minute plants and animals buried and sedimented for millions of years.

Recycling: It means using discarded materials once again.

Metallic Minerals: The minerals which contain metal in raw form are known as metallic minerals.

Non-Metallic Minerals: The minerals which do not contain metal are known as non-metallic minerals.

Textual Questions

Q1) Answer the following questions:

(i) Name any three common minerals used by you every day?

Ans: The three common minerals used by us in our day to day life are Coal, copper and Iron. , Salt

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

Ans: An ore is a type of rock that contains minerals with important elements including metals.

The ores are extracted through mining; these are then refined to extract valuable elements.

Although more than 2800 types of minerals have been identified & only about 100 are considered as ore minerals.

Generally the ores of metallic minerals are found in igneous & metamorphic rock formations that form large plateaus.

(i) Name two regions rich in natural gas resources?

Ans: The regions which are rich in reserves of natural gas resources are: Russia, UK, and Norway in Europe.

Jaisalmer, Krishna, Godavari Basin & Digboi Region in India.

(ii) Which sources of energy would you suggest for:

Ans: a) Rural Areas b) Coastal areas c) Arid areas.

& firewood.

b) Coastal Areas: The sources of energy suitable for coastal area is wind & tidal energy.

c) Arid Areas: The sources of energy suitable for arid region is solar energy.

V) Give five ways in which you can save energy at home?

a) Cook food with closed lid.

(b) Use pressure cooker to cook hard food.

(c) Soak food like pulses before cooking. (d) Use energy saver for lightening purpose.

(e) Switch off all lightening bulbs during day-time.

Q3) Give Reasons - Why?

a) Environmental aspect must be carefully looked into before building huge dams:

Ans: Environmental aspect must be carefully looked into before building huge dams because construction of huge dams causes loss of biodiversity and produce other environmental problems.

b) Most industries are concentrated around coal mines.

Ans: Most industries are concentrated around coal mines because coal is used for generating thermal electricity in these industries. It is a key mineral and fuel for the industries. Many industries use it as a raw material, so most industries are concentrated around coal mines.

ii) Petroleum is referred to as “black gold”?

Ans: Petroleum is referred to as black gold because it is very valuable .It is valuable on account because its demand is increasing while its reserves are declining.

iv) Quarrying can become a major environmental concern.

Ans: Minerals that lie near the surfaces are simply dug out, by the process known as Quarrying. It can become a major environmental concern because it causes pollution & degrade soil.

Q4) Distinguish between:

a) Conventional & Non Conventional sources of energy.

Conventional	Non Conventional
1. Conventional sources of energy have been used since long time.	1. Non Conventional sources of energy have come into the use very recently.
2. Coal, Petroleum, natural gas , hydroelectricity , thermal power are the conventional sources of energy.	2. Wind energy, Solar energy, tidal energy, geothermal, biogas are examples of these sources of energy.
3. All conventional sources of energy except hydroelectricity are exhaustible.	3. Most of the Non Conventional sources of energy are inexhaustible.
4.These sources cause environmental pollution.	4.These sources do not cause environmental pollution.
5. These are costly sources of energy.	5.These are cheap sources of energy.

b) Biogas & natural gas.

Natural Gas	Biogas
1.It is an inflammable gas found in the earth's crust naturally.	1. It is a gaseous fuel produced by the fermentation of organic matter.
2.Natural Gas is found associated with or without petroleum.	2.Shrubs , farm wastes, animal & human wastes are used to produce biogas.
3.In India , most of its production comes from Mumbai High , Gujarat & Assam.	3. It is mostly produced in rural areas for the domestic consumption.

4. Its two important forms are LPG (Liquified petroleum gas) & CNG (Compressed Natural Gas).	4. It is only one gas i.e. biogas.
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C) Metallic & Non-Metallic Minerals.

Metallic Minerals	Non-Metallic Minerals
1. Metallic minerals are those minerals from which metals are extracted after their processing.	1. Non-Metallic minerals are those minerals from which non-metals are extracted after their processing.
2. They undergo the process of smelting.	2. They cannot undergo the process of smelting.
3. They are often hard and have shine of their own.	3. They are neither hard nor do they have shine of their own.
4. They are classified as ferrous & non-ferrous metallic minerals on the basis of presence of iron metal.	4. They are classified into liquid & solid on the basis of form such as petroleum (liquid) & potassium (solid).

D)

Ferrous minerals	Non Ferrous minerals
1. Minerals which contain iron are called ferrous minerals.	1. Minerals which do not contain iron are termed as non ferrous minerals.
2. Examples are manganese & chromites.	2. Gold, silver, copper can be cited as examples.

Additional Questions

Q) Describe the distribution of minerals in the world?

Ans: The distribution of minerals in the world can be explained as:
Asia: China and India have the large iron ore deposits. The continent produces more than half of the world's tin. It has also deposits of bauxite, nickel, Zinc & copper.

Europe:- Europe is the leading producer of iron ore in the world. Mineral deposits of copper, Zinc, manganese & nickel found in Eastern Europe & European Russia.



- iii) **North -America:** Iron ore , nickle , gold , uranium & copper are mined in the Canadian shield region, coal in Appalachians region. Western cordilleras have vast deposits of copper lead ,Zinc , gold and silver.
- iv) **Africa:** Africa is rich in mineral resources .It is the worlds largest producer of diamonds, gold & potassium .Oil is found in Nigeria, Libya & Angola.
- v) **South America:** Brazil is the largest producer of high grade iron ore .Chile & Peru are leading producer of Copper. Brazil & Bolivia are among leading producers of tin. Mineral oil is found in Venezuela, Argentina, Chile & Columbia.
- vi) **Australia:** Australia is leading producer of bauxite, gold, diamond, iron Tin & nickle.
- vii) **Antarctica:** Coal, iron ore, gold, silver & oil are present in commercial quantities.

Q) Describe distribution of minerals in India.

Ans: India has a vast deposition of minerals:-

- i) **Iron Ore:** It is mainly found in Jharkhand, Odisha, Chhattisgarh , M.P , Goa , Maharashtra & Karnataka .
- ii) **Bauxite:** Major Bauxite producing areas are Jharkhand , Orissa , Chhattisgarh , M.P, Gujrat, Maharashtra and Tamil Nadu.
- iii) **Mica:** It is mainly found in Jharkhand, Bihar, Andhra Pradesh & Rajasthan.
- iv) **Copper:** It is produced in Rajasthan, M.P, Jharkhand, Karnataka & Andhra- Pradesh.
- v) **Manganese:** It is found in Maharashtra, M.P, Chhattisgarh, Orissa, Karnataka & Andhra – Pradesh.
- vi) **Gold:** It is found in Kolar mines in Karnataka.

Q) What are the uses of minerals?

Ans: Minerals are used in many industries. Minerals are also used for making jewellery. Silicon obtained from Quartz is used in computer industry. Copper is used in everything from coins to pipes. Aluminum obtained from bauxite is used in automobiles & aeroplanes, bottling industry & even in kitchen cookware.

Q) How can be minerals conserved?

Ans: Minerals are a non-renewable resources. It takes thousands of years for the formation & concentration of minerals. The rate of formation of minerals is much slower than the rate of consumption by humans. It is necessary to

reduce wastage in the process of mining. Recycling of metals is another way in which minerals resources can be conserved.

Q) What is mining? What are its types?

Ans: The process of taking out minerals from the rocks buried under the earth's surface is known as mining.

Minerals that lie at shallow depths are taken out by removing the surface layer this is known as open cast mining.

Deep bores called, shafts, have to be made to reach mineral deposits that lie at great depths. This is called shaft mining.

Petroleum & natural gas occur far below earths surface. Deep wells are bored to take them out, this is called drilling.

Q) List the minerals located in J&K?

Ans: The minerals located in J&K are:

- a) **Coal:** It is obtained from coal mines in Rajouri & Udhampur.
- b) **Gypsum:** It is found in Baramulla & Pariankal(Ramban).
- c) **Borax:** It is found in Pugga valley (Ladakh).
- d) **Copper Ore:** It is found in Aishmuqam, Shubbar(Anantnag), Lashtil Handwara,

Sumbal, Lolab & Kangan (Ganderbal).

Iron Ore: It is found in Shardah , Khrew , Haral , Gurez & Lolab.

Gold: It is found in Kagril , Leh & Sonamarg.

Uranium: It is found in Ladakh.

Marble: It is found in Kupwara district of Kashmir.

Sulphur:It is found in Pugga valley , Anantnag spring water , Khrew & Dubajan.

Q) What is NHPC?

Ans: NHPC (National Hydro Power cooperation), is a central under taking that has the mandate to develop power projects in India.

Q) What is Hydroelectric power potential of J&K?

Ans: The state of J&K has a potential of producing 20,00 MW of hydro electric power. Inspite of huge potential, J&K remains to be a power starved state as it's able to produce only 1400 MW currently.

Q) What are conventional sources of energy? Describe two main sources of it?

Ans: Conventional sources of energy are those which have been in common use for a long time.

Two main sources of conventional energy are:

Coal: This is the most abundantly found fossil fuel. It is used as a direct fuel, in industries such as iron & steel & to generate electricity. Electricity obtained from coal is termed as thermal energy.

The leading producers of coal are China, The USA, Germany, Russia, and France.

ii) Petroleum : This is an important fossil fuel widely used in the world. Petroleum & its derivatives are called Black Gold as they are very valuable. The chief petroleum producing countries are Iran, Iraq, Saudi Arabia, Qatar.

Q) What are Fossil Fuels?

Ans: Remains of plants & animals which were buried under the earth for millions of years got converted by heat & pressure into fuels called fossil fuels.

Q) What is Petroleum?

Ans: The word petroleum is derived from latin word petra means rock & oleum means oil. So, petroleum means rock oil.

Q) What is CNG?

Ans : Compressed Natural gas (CNG) is a popular eco-friendly automobile fuel which causes less pollution.

Q) What is hydroelectricity?

Ans : Rain water or river water stored in dams is made to fall from heights . The falling water flows over turbine blades placed at bottom of dam. The moving blades then turn the generator to produce electricity known as hydro- electricity .One fourth of the world's electricity is produced by hydro power.

Q) What is solar energy?

Ans: Energy obtained by trapping the sun rays with the help of solar cells is known as solar energy. Solar energy is also used in solar heaters, solar cookers and for community lighting & traffic signals.

Q) What is nuclear power?

Ans: Nuclear power is obtained from energy stored in the nuclei of atoms of naturally occurring radio active elements like uranium & thorium .These fuels undergo nuclear fission in nuclear reactors & emit power known as nuclear power. The nuclear power stations in India are located in Kalpallam in Tamil Nadu, Tarapur, in Maharashtra , Ranapratap sagar near Kota in Rajasthan , Narora in Uttar Pradesh & Kaiga in Karnataka.

Q) What is geothermal energy?

Ans: Heat energy obtained from the earth is called geothermal energy. Temperature in the interior of the earth rises steadily as we go deeper. Sometimes this heat energy may surface itself in the form of hot springs. This heat energy can be used to generate power. The USA has the world's largest geothermal power plants followed by New Zealand, Ireland, Philippines & Central America.

Q) What is tidal energy?

Ans: Energy generated from tides is called as tidal energy. Tidal energy can be harnessed by building dams at narrow openings of the sea. During high tide, the energy of the tides is used to turn the turbine installed in the dam to produce electricity. Russia, France & the Gulf of Kuchh in India have tidal mill farms.

Q) What is Biogas? What are its uses?

Ans: Organic waste such as dead plant & animal material, animal dung & kitchen waste can be converted into a gaseous fuel called biogas. The organic waste is decomposed by bacteria in biogas digesters to emit biogas which is essentially a mixture of methane & carbon dioxide. Biogas is an excellent fuel for cooking & lighting & produces huge amount of organic manure each year.

Class 8th Chapter 4
(Agriculture)

Main points to remember

1. **Organic farming:** In this type of farming organic manure and natural pesticides are used instead of chemicals.
2. **Commercial agriculture:** A type of agriculture in which farmer produce for the market through mechanized farming.
3. **Sericulture:** Commercial rearing of silkworms. It may supplement the income of the farmer.
4. **Horticulture:** Growing vegetables, flowers and fruits for commercial use.
5. **Pisciculture:** Breeding of fish in specially constructed tanks and ponds.
6. **Viticulture:** Cultivation of grapes.
7. **Intensive agriculture:** In this type of farming the farmer produces by working hard and using the same field over and over again making use of better agricultural means.
8. **Kharief:** The season of cropping which starts in early June and lasts till the end of October.
9. **Rabi:** The season of cropping which starts with the beginning of winter and continues till the spring season.
10. **Zaid:** An extra cropping season which starts at the end of rabi and ends till kharief starts.
11. **Crop rotation:** Raising of crops on a farm cyclically in a way that fertility and productivity of land is maintained.
12. **Multiple cropping:** When two or more than two crops are grown simultaneously in the same field.

(Textual questions)

***Q.No.1 What is agriculture?**

Ans.: The word Agriculture is derived from two Latin words "Agri" and "cultura". "Agri" means "soil" and "cultura" means cultivation or tilling of soil. It is the science or practice of farming including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool and other products.

* Q.No. 2 Name the factors influencing agriculture?.

ANS: The various factors which influence agriculture are relief, soil conditions, temperature, rainfall.

Q. No. 3 What is shifting cultivation ? what are its advantages.

Ans.: Shifting cultivation or slash and burn cultivation is a type of farm activity which involves clearing a plot of land by felling trees , burning felled trees, mixing the ashes with the soil and then growing crops like M., potatoes and cassava on the cleared land .After the soil loses its fertility, land is abandoned and the cultivator moves on to a new plot.Main areas this cultivation are Amazon Basin, North East India, parts of Southern A and Tropical Africa

This type of farming has the following disadvantages:-

- 1) It easily leads to loss of biodiversity
- 2) It can easily cause soil erosion
- 3) It can easily lead to desertification
- 4) It causes deforestation
- 5) Burning of trees causes air pollution

* Q. No. 4 What is plantation agriculture ?

Ans. Plantation agriculture is a type of commercial farming where a single crop of tea , coffee , sugar cane , cashew , rubber, banana or cotton is grown. Large amount of labor and capital is required in this type of farming. The produce is either processed on the farm itself or in the nearby factories. A well developed transport network is also required. Major plantations are found in the tropical region of world like rubber in Malaysia ,coffee in brazil , tea in Sri Lanka and India.

* Q. No. 5 Name the fiber crops and name the climate conditions required for their growth?.

Ans.: Jute and cotton are known as fiber crops. the climate conditions required for their growth are:

- 1) **Jute (Golden fiber):-** High Temperature more than 25°C , heavy rainfall , warm and humid climate is good for its growth
- 2) **Cotton:-** High temperature around 30°C to 40°C , light rainfall and most importantly 210 frost free days and bright sunshine , which means lot of cloud free sunny days are essential for cotton growth.

Q. No. 6 Give reasons why?

I) In India agriculture is a primary activity

Ans.: Agriculture is a primary activity because many regions in India have fertile land that is favourable for agriculture. Two third of India's population is still dependant on agriculture. This is mainly because of the lack of literacy among the people. Hence India being a densely populated country requires large scale production of food to meet the needs of the people. Agriculture and its allied activities act as main source of livelihood for more than 80% of population.

II) Different crops are grown in difficult regions. Why?

Ans.: Different crops require different types of soil and climatic conditions for growth. These requirements cannot be met at one place for all types of crops. For example cotton is grown in black soil while alluvial soil is good for rice. Different regions have black and alluvial soil. Some crops like tea and jute require heavy rainfall, while cotton requires light rainfall. These climatic conditions are not possible in same area, so different crops are grown in different regions.

Q. No. 4 Distinguish between :-

1) Primary activity and tertiary activities

Primary Activity	Tertiary Activities
<ul style="list-style-type: none"> It includes all those economic activities which are connected with extraction and production of natural resources 	<ul style="list-style-type: none"> These are those activities that provide support to the primary and secondary activities
<ul style="list-style-type: none"> Example of primary activities are fishing, agriculture, mining, grazing, hunting etc. 	<ul style="list-style-type: none"> Tertiary activities include transport, communication, banking etc.

2. Subsistence farming and intensive farming.

Ans.: Subsistence farming: - This type of farming is practiced to meet the needs of the farmer's family. Low levels of technology and household labour are used to produce on small farms. It can be further classified into intensive subsistence farming and primitive subsistence farming. It depends upon monsoon and natural fertility of soil.

Intensive farming: - In this type of farming the farmer cultivates a small plot of land using simple tools and more labour. This type of farming is prevalent

in areas of high population pressure on land. Climate with large number of days with sunshine and fertile soil permit growing of more than one crop annually on the same plot. It is practiced in thickly populated areas of monsoon regions of South, South East and East Asia.

Additional questions

Q.1) What is the difference between farming in India and USA?

Ans)

Farming in India	Farming in USA
a) The size of the farm lands are small, about 1.5 hectares.	a) The size of the farm lands is large, about 250 to 300 hectares.
b) Generally wheat or rice are grown.	b) The major crops grown are wheat, cotton, sugar, beet etc.
c) Farmers use traditional methods of farming.	c) Farmers use, tractors, seed driller, leveler, combined harvesters, etc for agricultural operations.
d) There is lack of storage facilities.	d) Automated storage facilities are well developed.
e) Agricultural credit and marketing facilities are not well developed.	e) Marketing and credit facilities are very much developed.

Q.2) What is agricultural development? How can be it achieved?

Ans) Agricultural development refers to the efforts made to increase farm production in order to meet the growing demand of increasing population. The ultimate aim of agricultural development is to increase food security.

Agricultural development can be achieved by many ways such as:

- ❖ Increasing the cropped area.
- ❖ Increasing the number of crops grown.
- ❖ Improving irrigation facility.
- ❖ Using fertilizers.
- ❖ Using HYV of seeds.
- ❖ Mechanization of agriculture.

Q.3) What are the conditions required for cultivation of rice?

Ans) Rice needs high temperature, high humidity and rainfall. It grows best in alluvial clayey soil, which can retain water. China leads in production of rice followed by India.

Q.4) Mention climatic conditions necessary for wheat and maize?

Ans) Wheat requires moderate temperature and rainfall during growing season and bright sunshine at the time of harvest. It thrives best in well drained loamy soil. Wheat is grown extensively in USA, Canada, Argentina, Russia, Ukraine, Australia and India.

Maize requires moderate temperature, rainfall and lots of sunshine. It needs well-drained fertile soils. Maize is grown in north America, China, Russia, Canada, India and Mexico.

Q.5) Mention climatic conditions required for the growth of millets?

Ans) Millets are also known as coarse grains and can be grown on less fertile and sandy soils. It is a hardy crop that needs low rainfall and high to moderate temperature and adequate rainfall. Jowar, Bajra and Ragi are grown in India. Other countries are Nigeria, China.

Q.6) Name some beverages? Mention the climatic conditions required for the growth?

Ans) Coffee: It requires warm and wet climate and well drained loamy soil. Hill slopes are more suitable for growth of this crop.

Tea: Tea requires cool climate and well distributed high rainfall throughout the year for the growth of its tender leaves. It needs well drained loamy soil and gentle slopes.

Q.7) What are the various climatic zones of J&K?

Ans) J & K is divided into three different climatic zones.

- ❖ Humid – subtropical Jammu
- ❖ Temperate Kashmir valley
- ❖ Cold arid Ladakh

- Humid Sub-Tropical Jammu is main producer of maize and wheat. It contributes 80% of total maize and 96% of total wheat of state.
- Temperate Kashmir valley is known as 'cultivators paradise'. Rice is the chief crop of alluvial valley bed. Pampore Karewa is famous for saffron production. Kashmir accounts for 74% of total rice produced in state. Kulgam is called the granary of Kashmir. Oilseeds, maize, vegetables, pulses, tobacco etc is also grown here.
- Cold arid Ladakh produces barley, wheat and millets.

Q.8) Write a short account on horticulture in J&K?

Ans) J & K is very famous for its horticulture. Kashmir offers a scope for all types of horticulture ranging from temperate fruits like apple, pear, plum, apricot, almonds, walnuts, cherry, etc. To sub-tropical fruits like

mango, guava, litchi etc. Horticulture contributes about 80% to the economy and 45% of agriculture sector.

Q.9) What is arable land?

Ans) The land on which the crops are grown is known as arable land.

Q.10) What is major food crop of the world?

Ans) Rice is the major food crop of the world. It is the staple diet of the tropical and sub-tropical regions.

Q.11) Name countries which are leading producer of tea, coffee, cotton and jute?

Ans) **Tea;** It is produced in Kenya, India, China and Sri Lanka.

Coffee; Brazil, Colombia and India.

Jute; India and Bangladesh.

Cotton; China, USA, India, Pakistan, Brazil and Egypt.

Class 8th Chapter 5

Industries

Terminology

- 1. Primary Product:-** Primary products are the raw materials that are extracted from land or ocean. They include products of mining, agriculture, forestry & fisheries .These goods are either sold or used as raw materials for use in processing or manufacturing to increase their value. Primary products include: fruits, vegetables, seafood, logs etc.
- 2. Secondary Product:-** The products obtained after processing of the primary products are called as secondary products .Usually the secondary product has more value & utility than the raw material from which it is made. For example; paper made from pulp & cloth made from cotton.
- 3. Cottage Industries:-** A type of small scale industries where the products are manufactured by hand , by the artisans . Basket weaving, pottery & other handicrafts are examples of cottage industries.
- 4. Multinational Corporation (MNC):-** A corporation that has its facilities & other assets in at least one country other than its home country. Examples include Coca-cola, Nike, Toshiba, Honda etc.
- 5. Smelting:-** It is a process in which metals are extracted from their ores by heating beyond melting point.
- 6. Sunrise Industry:-** A sunrise industry is one that is new or relatively new , is growing fast & is expected to become important in the future. Examples include information technology industry, Hydrogen fuel industry, space tourism, wellness, Hospitality & knowledge.
- 7. Tertiary activities:-** Tertiary economic activities are service based activities & give non-tangible value to customers. Examples of companies that work in this sector include banks, public transportation, education etc.
- 8. Textile:-** A textile is a cloth which is either woven by hand or machine .The term ‘textile’ is derived from latin word texere which means to weave.
- 9. Alloy :-** A mixture of metals. For example, Brass, which is an alloy of Copper & Zinc.

Textual Questions

Q1) i) What is meant by the term 'Industry'?

Ans: The term 'industry' refers to an economic activity that is concerned with production of goods, extraction of minerals or the provision of services. For example; steel industry for production of goods, coal mining industry for extraction of coal & tourism industry as service provider.

ii) Which are the main factors that influence the location of an industry?

Ans: The main factors that influence the location of an industry are as follows:

- a) Availability of raw material.
- b) Availability of labour.
- c) Proximity to markets.
- d) Transport facilities.
- e) Power supply.
- f) Capital investment and
- g) Availability of land & water.
- h) Sufficient and efficient technical knowhow.

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

Ans: Iron & steel industry is known as the backbone of modern industry. It is because of the following reasons:

i) Iron and steel industry acts as a feeding spoon for each and every industry either directly or indirectly. As its furnished products are used as raw material in other industries and it is the basic and ultimate industry which uses machines and creates other machinery which are henceforth used in different sectors.

ii) Machines & equipments are all made of steel. For example; Farm machines are mostly of steel, oil wells are drilled with steel machinery, steel pipelines transport oil, minerals are mined with steel equipment.

iii) The transport sources like trains, ships, trucks and autos are all made of steel.

iv) Why cotton textile industry rapidly expanded in Mumbai?

Ans: The cotton textile industry rapidly expanded in Mumbai because of the following reasons:

1. Availability of raw cotton.

2. Availability of market.
3. Transport facilities including accessible port facilities.
4. Availability of cheap & skilled labour &
5. Favourable warm & moist climate.

QNO3) Distinguish between:

- i) Agro based & Mineral based Industry.
- ii) Public Sector & Joint Sector industry.

Ans: (i)

Agro-based Industry	Mineral based Industry
1. The Agro-based industry use plant & animal products as raw materials.	1. Mineral based industries use mineral ores as their raw material.
2. These industries have no large investment.	2. These industries have a large investment.
3. These industries are a source of employment for people in rural areas.	3. The industries are a source of employment for people in rural as well as urban areas.
4. Agro-based industries are cotton, silk, jute, woolen textile, edible oil, dairy products & leather industries.	4. Mineral-based industries are iron & steel industry , Aluminum smelting, cement industry etc.

ii) Public -Sector Industry & Joint-Sector Industry:

Public -Sector Industry	Joint-Sector Industry
1. The public-Sector industries are owned & managed by the central or state governments or by their agencies.	1. The Joint-Sector industries are owned & managed jointly by the private firms & the government agencies.
2. Bhilai Steel Plant, Bharat Heavy Electricals Hindustan Aeronautics & steel Authority of Indian are examples of public sector industries.	2. Maruti Udyog limited, Punjab National Bank & Oil India are Joint Sector Industries.

Additional Questions

Q1) How Industries are classified?

Ans: Industries are classified on the basis of raw materials, size & Ownership. On the basis of these criteria, Industries can be further classified as follows:

I) On the basis of Raw -Materials:

- a) Agro based industries.
- b) Mineral based industries.
- c) Marine based industries.
- d) Forest based industries.

II) On the basis of size:

- a) Large scale industries.
- b) Small scale industries.

III) On the basis of ownership:

- a) Private sector industries.
- b) Public sector Industries.
- c) Joint sector industries.
- d) Co-operative industries.

QNO2) How industries are classified on the basis of their Raw materials?

Ans: On the basis of the raw material used by different industries, they can be classified as follows:

a) Agro based industries:- Industries which use products based on plants & animals as their raw materials are called as 'Agro based industries'. For example , food processing, cotton textile, dairy products , leather industries etc.

b) Mineral based industries:- These are the primary industries that use mineral ores as their raw materials . The products of these industries are used by other industries .For example, iron & steel industry, copper industry etc.

c) Marine based industries:- Industries using products from the sea & oceans as their raw materials are termed as 'Marine based industries'.For example , sea food processing industry , fish oil industry etc.

d) Forest based industries:- Industries which use forest products as their raw materials are termed as 'Forest based industries'. For example; pulp & paper , pharmaceuticals, furniture etc.

QNO3) How industries are classified on the basis of size?

Ans: The term 'size' for an industry is often used to indicate the capital invested, manpower engaged & the volume of production of that industry. On the basis of size, industries can be classified as follows:

- a) **Small Scale Industries:-** These are the industries which use lesser amounts of raw material , capital & technology .Cottage industries are an example of small scale industries.
- b) **Large Scale Industries:-** Under this category come those industries which use large amount of raw materials for their huge production, large capital investment & superior technology. Examples are Iron & Steel Industry, automobile industry etc.

QNO4) How industries are classified on the basis of ownership?

Ans: Industries can be classified on the basis of ownership as mentioned below:

- a) **Private sector Industries:-** Private sector industries are owned & operated by an individual or a group of individuals. For example, TISCO, Reliance Industries Limited etc.
- b) **Public sector industries:-** These industries are owned & operated by the government .For example ; Steel Authority of India limited (SAIL), Hindustan Aeronautics Limited(HAL) etc.
- c) **Joint sector industries:-** Joint sector industries are owned & operated by the government as well as an individual or a group of individuals .Example Maruti Udyog Limited (MUL).
- d) **Co-operative sector industries:-** Co-operative sector industries are those industries which are owned & operated by the suppliers of raw materials , workers or both of them. Examples of such industries are-Anand Milk union Ltd., Sudha Dairy etc.

QNO5) What does industrial system consist of ?

Ans) Industrial system consists of three things

- i) Inputs i.e. ; the raw materials , labour & costs of land , transport , power & other infrastructure.
- ii) Processes i.e. wide range of activities that convert the raw material into finished products.
- iii) Outputs i.e. end product & the income earned from it.

QNO6) Which are the major industrial Regions of the world?

Ans: The major industrial Regions of the world are eastern North America, Western & central Europe, Eastern Europe & Eastern Asia.

QNO7) Name the industrial Regions of India.

Ans: The industrial Regions of India are Mumbai -Pune cluster , Bangalore - Tamil Nadu region , Hugli region , Ahmedabad -Baroda region , Chottanagpur industrial belt , vishakapatnam -Guntur belt , Gurgaon -Delhi -Meerut region & the kollam - Thiruvananthapuram cluster.

QNO8) What is an Industrial disaster ? Give some steps of Risk Reduction Measures.

Ans: 'Industrial Disaster' is a term used for accidents or disasters which sometimes happen in industries mainly due to technical failure or irresponsible handling of hazardous materials. Some examples of unforgettable industrial disasters in the history are -Bhopal Gas Tragedy of Union Carbide & Gas well Blowout of Gao Qiao in China.

- Densely populated residential areas should be separated away from the industrial areas.
- People staying near the industrial areas should be informed about the storage of hazardous materials & the possible escapes from the effects of such materials.
- Fire warning & fighting system should be improved.
- Storage capacity of toxic substances should be limited.
- Pollution dispersion qualities in the industries should be improved.

Q9) Name the clothes which were famous all over the world before the British came to India.

Ans: The hand woven clothes like Muslins of Dhaka, Chintzes of Masulipatnam , Calicos of Calicut & gold -wrought pieces of Burhanpur , Surat & Vadodara were famous for their quality & design before British came to India.

Q10: Write a short note on TISCO?

Ans: TISCO (Tata Iron and steel Company Limited), now called as Tata steel limited , is an Indian multinational steel -making company. It is the 12th largest steel producing company in the world & the largest private sector steel company in India.

It was established by Jamshedji Tata on August 25, 1907 at Sakchi, (Jamshedpur) near the confluence of the rivers subarbarekha and kharkai in Jharkhand.

Sakchi was chosen to set up the plant for several reasons. This place was only 32km away from the Kalimati Station on the Bengal – Nagpur railway line. It was close to the iron ore, coal and manganese deposits as well as to Kolkata, which provided a large market. TISCO gets coal from Jharia coalfields, and iron ore, dolomite, limestone and manganese from Odisha and Chattisgarh. The Kharkai and subarnarekha rivers ensure sufficient water supply.

Almost all sectors of Indian industry depend heavily on the iron and steel industry for their basic infrastructure. So, the development of TISCO in India opened the doors to rapid industrial development and many industrial plants producing chemicals, locomotive parts, agricultural equipment, machinery, tinplate, cable and wire were set up after TISCO. Thus, TISCO has an important role in making India an industrialized nation.

Q11) Write a short note on Information Technology?

Ans: The Information technology industry deals in the storage, processing and distribution of information. Today, this industry has become global. This is due to a series of technological, political and socio-economic events. The main factors guiding the location of these industries are resource availability, cost and infrastructure. The major hubs of the IT industry are the Silicon Valley in California and Bangalore in India. There are other emerging information technology hubs in metropolitan centres of India such as Mumbai, New Delhi, Hyderabad & Chennai, Gurgaon, Pune, Thiruvananthapuram, Kochi and Chandigarh are also important centres of IT industry.

Q12) Write a short note on industries of J&K.

Ans: The state of Jammu & Kashmir lags behind in industrial development due to a number of reasons . Handicrafts & Handloom are the most popular industries in J&K. Carpet weaving , wood carving , chain stitch work , Numdah & Gabbah making, Sozni , paper machine , Basket making , Willow work, copper work , Gold & silver work are important handicrafts of J&K .Joinery /Furniture industry is based here due to availability of quality wood. Other industries that have developed in J&K are the Gems & Jewellery, silk & woolen textiles, Mineral based industry, tourism, information technology &

Agro-based industry. Cement industry is the most important industry J&K.

J&K cements Ltd. , HMT , J&K Woollen Mills , Govt. Silk Factory & Joinery Mills Pampore are the major public sector undertakings. Heavy industries have not been developed here.

Q13) Why do high technology industries group together?

Ans: High technology industries group together because of the following reasons:

- i)They can be located near main road/highways for an easy access.
- ii) Firms can benefit from exchange of knowledge.
- iii) Services & facilities such as roads , car parks & waste disposal can be organized efficiently.

Q14) What do the following stand for?

BEL, BHEL , HAL , NAL, DARDO , ISRO , ITI , IISC , NCBS & UAS.

Ans: **BEL** ----- Bharat Electronics Limited.

BHEL----- Bharat Heavy Electrical Limited.

HAL ----- Hindustan Aeronautics Limited.

NAL ----- National Aerospace Laboratories/National Aluminium Limited

DRDO ----- Directorate of Research & Development organization.

ISRO ----- Indian Space Research Organisation.

ITI ----- Industrial Training Institute/Indian Technical Institute.

IISc ----- Indian Institute of Science.

NCBS ----- National Centre for Biological Sciences.

UAS ----- University of Agricultural Sciences/User Agent Server.

Points to Remember:

1. Bhopal Gas leak Incident occurred in Bhopal on 3 December 1984, around 00:30 am. In this incident Methyl Isocyanate(MIC) & Hydrogen Cyanide along with other reaction products leaked out of the pesticide factory of Union Carbide. This resulted in the death of about 3,598 people.
2. The raw materials for Iron & Steel industry are iron ore, coal & limestone.
3. Steel is made from iron by the reduction of carbon content (carbon content in steel is less than 2%).

4. Important steel producing centres in India are Bhilai, Durgapur, Burnpur, Jamshedpur Bokaro & Rourkela.
5. India's steel production increased from one million tonne in 1947 to 30 million tonnes in 2002.
6. TISCO was founded by Jamshedji Tata on 25 August, 1907 at Sakchi (Jamshedpur).
7. Pittsburgh is an important steel city of the United States of America.
8. The first successful modern textile mill was established in Mumbai in 1854.
9. Ahmedabad is called as the 'Manchester of India'.
10. Osaka is an important textile centre of Japan, also known as the 'Manchester of Japan'.
11. About 1/3 rd of the Indian textiles industries total production is exported.

Class 8th Chapter No. 6

Human Resources

Terminology

- 1. Population:** The entire number of individuals of a particular species living in a specific geographical area constitutes the population of that species in that area e.g human population, Tiger population etc.
- 2. Population Distribution:** The term population distribution refers to the pattern or arrangement of how people live in a particular area. The distribution of population in the world is uneven. Some areas are very crowded and some are sparsely populated.
- 3. Population Density:** Population density is the number of people living in a unit area of the earth's surface. It is mainly expressed as persons per square kilometer. The average density of population of the whole world is 51 persons per square kilometer.
- 4. Population Change:** Population change refers to the change in the number of people during a specific period of time.
- 5. Population Explosion:** Population explosion refers to the spontaneous increase in the size of population. The causes of population explosion have been the high birth rates and decreased death rates.
- 6. Birth rate:** The number of live births per thousand persons is called as birth rate.
- 7. Death rate:** The number of deaths per thousand people is called as death rate.
- 8. Natural Growth rate:** The difference between the birth rate & death rate of a country is called the natural growth rate. The population increase in the world is mainly due to rapid increase in natural growth rate.
- 9. Migration:** Migration is the movement of people across region & territories. Migration can be internal (within the country) or international (between the countries). Internal migration does not change the size of the population, but influences the distribution of population within the nation. International migration has an effect on the population size of the countries.
- 10. Immigration:** When a person enters a new country, it is called as immigration.
- 11. Immigrants:** These are the people who arrive in a country.

12. **Emigration:** When a person leaves a country, it is called as emigration.
13. **Emigrants:** These are the people who leave a country.
14. **Population Composition:** Population composition refers to the structure of the population living in a country. It includes age structure, gender ratio, occupation structure, literacy etc.
15. **Population Pyramid:** A population pyramid also called an age-sex pyramid is a graphical illustration that shows the distribution of gender wise various age groups in a population. It helps in understanding about the population of a country.
16. **Life expectancy:** It is the number of years that an average person can expect to live.
17. **Census:** A census is a count of the population of a country, concerned with finding out facts about the population such as their age, sex, jobs they do, type of house and what language they speak. In India, it is done after every ten years.
18. **Demography:** Demography refers to the study of quantitative (composition, density, distribution etc) and qualitative (education quality, diet and nutrition, race, social class, wealth etc) aspects of human population.
19. **Population Growth:** Population growth means an increase in the number of people that reside in a country, state or city.
20. **Occupational structure:** Occupational structure refers to the distribution of population according to different types of occupations. An enormous variety of occupations are found in any country. Occupations are generally classified as primary, secondary and tertiary.
21. **Sex Ratio:** Sex ratio is defined as the number of females per thousand males in the population.
22. **Population Size:** Population size is the actual number of individuals in a population.
23. **Literacy:** The ability to read, write and do little maths and understanding is known as literacy.
24. **Human resource:** Human resource are the people who make up the work force of an organization, business sector or economy.

Textual Questions

Q1) (i) Why are people considered a resource?

Ans: People are considered a resource because all other resources are significant only when people find it useful. It is people with their de-

and abilities that give value to all other resources. Without people, other resources would not be useful to the maximum. Healthy, educated, skilled and motivated people are the future of the nation and this contributes to the country's economic development .Hence, human resource can be considered as the ultimate resource.

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

Ans: The causes for the uneven distribution of population in the world are as follows:

1. **Topography:** People always prefer to live around plains often in river valleys and plains because these areas are suitable for farming, manufacturing and service activities. The Ganga valley in India is one example of a very densely populated river valley while as mountains like the Andes, the Alps and the Himalayas are sparsely populated.
2. **Climate:** The best climate for people to live in are areas where there is a moderate climate, with enough sunshine and rain for crops to grow. Places with climatic extremes, such as the Polar Regions or deserts are too hot or cold for people to live.
3. **Resources:** People need water in order to survive. So, this is an essential resource which determines where they choose to live. For this reason, the river valleys of the world are densely populated while deserts are sparsely populated. Other resources such as coal, oil and minerals have also had a great impact on where people have chosen to settle. For example, Diamond mines of South Africa & discovery of oil in the Middle East led to settling of people in these areas.
4. **Soil:** Fertile soils provide suitable land for agriculture. So the areas having fertile soils like Ganga & Brahmaputra in India, Hwang- Ho, Chang Jiang in China & the Nile in Egypt are densely populated.
5. **Social , Cultural and Economic factors:** Areas of better housing , education & health facilities like Pune; places with religious or cultural significance like Varanasi , Jerusalem & Vatican City ; places providing good job opportunities like Mumbai are densely populated.

iii) The world population has grown very rapidly why?

Ans: The world population has grown very rapidly since 1800 A.D. Until the 1800 A.D, the world population grew steadily but slowly because of high death rates among children. It was because of the absence of proper health facilities and non-availability of sufficient food for all the people .But after the

industrial Revolution, there were great advances in science & technology and death rates decreased considerably because of the following factors.

- Increase in food production & distribution.
- Improvement in public health (water & sanitation).
- Medical technology vaccines and antibiotics.

Thus death rates decreased while birth rates continued to be very high. Also, the life expectancy increased. All these factors resulted in a rapid growth in population.

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

Ans: There are four factors that affect population change in a country. These include:

- Birth rate
- Death rate
- Immigration
- Emigration

Role of Birth rate & Death rate in population change:

Birth rate is the number of live births per thousand persons per year and Death rate is the number of deaths per thousand persons per year. These two factors are the natural causes of population change. The difference between the two is called the natural growth rate or natural increase or natural change.

Birth rates & death rates have a major role in population change. This can be explained as follows:

- If birth rates & death rates are high; population is low & unstable.
- If birth rates are high & death rates fall; Natural increase is greater. So population will grow rapidly.
- If both the death rates & the birth rates level out; Natural increase is low; population stabilizes.
- If birth rates fall below death rates, Natural increase is negative; population will start to decrease.

v) What is meant by population composition?

Ans: Population composition refers to the structure of the population living in a country. It helps us to know how many are males or females, which age group they belong to, how educated they are & what type of occupations they are involved in, what their income levels and health conditions are. Population composition of a country can be studied by the help of a population pyramid (or age-sex pyramid).

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

Ans: A population pyramid also called an age-sex pyramid is a graphical illustration that shows the distribution of various age groups in a population (typically of a country), which form the shape of a pyramid when the population is growing.

It helps in understanding many things about the population of a country like:

1. The total population divided into various age groups i.e. children (below 15 years) working age (15-59 years) & aged (above 59 years).
2. The percentage of the total population subdivided into males and females.
3. The number of children is shown at the bottom and reflect the level of births.
4. The size at the top shows the number of aged people and reflects the number of deaths.
5. The population pyramid also tells us how many dependents are there in a country i.e.; children, economically active people and aged people. Children and aged people are known as dependants and working people are independents.

Additional Questions

Q1) Write a short note on the distribution of human resources in J&K

Ans: The spatial distribution of population in J&K is highly uneven. The physical factors like terrain, topography, shape, climate, drainage, soil, natural vegetation, mineral resources and accessibility have largely controlled the distributional pattern of population in the state. The distribution of population differs from district to district. The highly populated district in Jammu with total population of 15, 26,406 & the least populated district is Kargil with total population of 1, 43,388 people.

Q2) Write a note on the demographic attributes of J&K.

Ans: The population of J&K as per the census of 2011 is 1, 25, 48,926. In the previous census, the total population of the state was 1, 00, 69,917. Thus, in a period of ten years about 25 lakh people got added to the population. Among various districts, Jammu stands at number one position with total population of 15.26 lakh. The population is growing at a faster rate when compared with the national average. The present decadal growth rate is 23.37 % while the national growth rate is only 17.64%. The increase in population may be attributed to the declining death rate & constant high birth rate.

The population density varies from area to area. It is about 56 persons per square kilometer as per the census of 2011. Highest population density can

be seen in Ganderbal with a density of 1151 persons/ sq.km while as Leh has the least population density of 3 persons/ sq. Km. The sex-ratio of the state is 883 females per 1000 males as per the census of 2011 while in the previous census of 2001, it was 892. Declining sex ratio is a cause of concern as it reflects gender discrimination in health care and a vicious mindset. High sex ratio is regarded as an indicator of development and social security.

Literacy rate in J&K is 68.74% , 78.26% males are literate while female literacy rate is only 58.01% low literacy rate is because of various factors mainly low level of awareness , religious ideology , low status of women, poverty , distance from the school etc.

Points to Remember

- More than 90% of the world's population lives in about 10% of the land surface.
- The crowded areas of the world are South & South East Asia, Europe and North Eastern North America.
- Out of every 100 people in the world; 61 live in Asia, 13 live in Africa, 12 in Europe, 8 in central & South America, 5 in Northern America & 1 in Oceania.
- The top to most populous countries are:
China, India, USA, Indonesia, Brazil, Pakistan, Bangladesh, Russia, Nigeria & Japan.
- The ministry of Human Resource Development in India was created in 1985.
- The population pyramid of a country in which birth rates and death rates both are high is broad at the base & rapidly narrows towards the top (e.g. Kenya)
- In countries where both death rates are decreasing (especially among the young), the pyramid is broad in the younger age groups, because more infants survive to adulthood (e.g. India). Such populations contain a relatively large number of young people and which means a strong expanding labour force.
- In countries like Japan, low birth rates make the pyramid narrow at the base.
- In India, the first census was held in the year 1872. The first complete census however was taken in the year 1881. Since then, census is done after every ten years

Class 8th CHAPTER 7
INDUSTRIES OF JAMMU, KASHMIR AND LADAKH

TERMINOLOGY

Manufacturing: A process of transformation of natural endowments into commodities of utility.

Capital: Investment incurred on the development of an industry.

Insurance: A security covers which can be used in times of need.

Large scale industry: An industry which employs a large number of labours in each unit.

Medium scale industry: An industry which employs neither very large nor very small number of labours.

Public sector industry: An industry owned by the state and its agencies like Bharat Heavy Electricals.

Joint sector industry: An industry owned jointly by the private firms and the state or its agencies.

Cooperative sector industries: An industry owned and run by a group of people who are generally producers of raw materials of the given industry.

Agro based industry: Those industries which obtain raw material from agriculture like cotton textile industry.

Mineral based industry: The industries that receive raw material from minerals e.g iron and steel industry.

Cottage industry: A small scale industry which is carried on wholly with the help of members of family.

(TEXTUAL QUESTIONS)

QNO1: Answer the following questions.

i) **Kashmir is known for its handicrafts. Discuss?**

ANS: In Kashmir with its severe winter when climatic conditions are harsh, craftsmen utilize their leisure as well as creative intelligence in creating artifacts of exquisite beauty. Princely patronage encouraged these handicrafts from early times. Even today these products light in weight and rich in art have great demand in India and abroad. The govt. has set up many training centre's for coaching young boys and girls in traditional art and crafts. As a result there has been a wide dispersal of handicrafts

throughout the union territory. Kashmir is known for the following handicrafts throughout the world:

- a) The art of making **carpets** is a gift of caravans coming into the valley from central Asia. In the time of Zainul abdin Badshah, this art was greatly developed by imported skill and royal patronage. The Europeons also took a keen interest in it.
- b) **Namdas** are made of wool of inferior quality and old woolen blankets are used for making Gabbas. The art of felting wool into **Namdas** has come from yarkand.**Namdas** and **Gabbas** are embroidered with thread which gives them colour, beauty and strength. This cottage industry is concentrated in Anantanag,Rianawari and Baramulla
- c) The **kangri** making is a cottage industry concentrated in the areas on the banks of Wullur lake near Watlab and at Chrar and Botingo villages
- d) **Lois**(wollen blankets):Wollen blankets of shopian and bandipora are well known. Hand woven blankets of Rainawari are also durable and warm.

ii) Discuss the mineral based industries of Jammu and Kashmir.

Ans: Jammu and Kashmir has a vast mineral base. The extraction of the minerals has come up in various parts of Jammu, Kashmir and Ladakh, and as such many mineral based industries have been established in both public and private sector. The calcareous and argillaceous minerals I,e limestone, gypsum, bauxite and clay are the main ingredients of cement industry and are mainly available in Baramullah, Anantanag, Reasi and Basohli. Some public sector plants have been established such as Wuyan cement factory(largest cement supplier to the valley of Kashmir established in 1962), PCF Bari Brahmna run by JK Minerals Ltd. and Khrew cement factory run by JK cements Ltd. Besides bricks and tile factories are also located at various locations over the region. A modern industrial centre is fast emerging at Bari Brahamna Jammu which has provided boost to the manufacturing sector in Jammu and Kashmir. It deals mostly with fast moving consumer goods and other consumer durables.

iv) Write a short note on the agro based industry of Jammu, Kashmir and Ladakh?

ANS: Jammu and Kashmir is an agrarian economy and agro based industry is the most important industry .In fact agricultural products not only yield over 50% of the UTs gross domestic product , it provides raw materials to a

number of industries. Fruit canning, edible oil extraction, flour mills, rice husking,. Factories, bakery all draw their raw material from agriculture. The plains of Jammu division and the valley of Kashmir produce huge quantities of rice .Over 60% of the total population of UTs is rice eater. Consequently there are numerous rice husking factories situated in smaller towns of the rice growing areas.

The rice mill of Barbarshah(Srinagar) is quite large. A modern rice factory was established at Laithpora(near pampore) in 1981.The valley of Kashmir has large tracts under apples, almond, walnut, cherry, peach and pear orchards. Transportation of these perishable fruits to the distant markets by roads is quite expensive. The processing of fruits, making jam jelly, juice etc is an important industry in Jammu and Kashmir. Numerous fruit processing and canning factories have been located in Baramulla and Anantnag districts. Many cold storage chains have been established in Lassipora (pulwama), Srinagar and Jammu regions

v) Write a short note on the tourism industry of Jammu, Kashmir and Ladakh?

ANS :Tourism in Jammu, Kashmir and Ladakh is one of the most important sectors of economy. Being the largest service industry, tourism is a significant contributor to the GDP(Gross domestic product), provides widespread employment etc. Tourism industry is being considered as the backbone of the economy for Jammu, Kashmir and Ladakh. The beautiful valleys, snow clad peaks, lakes and springs attract people from all over the world. Besides archaeological, cultural, religious places it offers the opportunities for trekking, mountaineering, skiing etc. Many hotels are fast coming up at various places across the union territories. Furthermore the growth of adventure tourism and cable car projects provide large employment opportunities across the regions especially in hospitality sector.

V) Write a short note on paper machie?

ANS: Paper Machie is a monopoly of Kashmir. Pulp and paper are shaped into a variety of decorative articles and colorful designs are painted on them. The goods prepared are mostly boxes, table lamps, toilet sets, jewellery boxes and other articles of decoration. Srinagar, Rainawari and Anantanag are famous for this cottage industry.

POLYTHENE -A DISASTER

Working with Text | Question Answers

* Q.1 What is polythene and who discovered it?

Ans. Polythene is a tough, light flexible synthetic resin made by polymerizing ethylene, chiefly used for plastic bags, food containers, and other packaging.

It was discovered by a German scientist, Hans von Pechmann who had, completely by accident.

Q.2 What does Rakesh's father expect from the kids?

Ans. Rakesh's father expects from the kids that they will stop using polythene bags which the elders have so far failed to do. They have to make a promise not to use polythene and also encourage other kids in their schools and neighbourhood not to do so.

* Q.3 Why is polythene widely used?

Ans. Polythene is widely used because the bags made from it are cheap and easy to carry. They are also used as packing bags. Most people also find them easy to dispose of after use as they are very light and can be easily thrown away.

Q.4 What is biodegradation?

Ans. Biodegradation is a process with which the things, like sewage constituents, packaging material, etc. decompose on their own by bacteria or other biological means. But so far as polythene is concerned, it does not decay on its own. It can't be even burnt/burned as the burning would cause immense air pollution.

* Q.5 What are the harmful effects of polythene?

Ans. Polythene has many harmful effects in our day to day life. It is the cause of diseases like malaria, cholera, etc. It also increases infertility. In addition to this, it plays a major role in the blockage of water systems like sewerage and water pipes, causing floods during moderate or heavy rainfall. Nowadays, rivers, lakes and small streams have become dumping sites of polythene bags which has become the cause of several problems for plants and animals living in and underwater.

* Q.6 How is the soil affected by polythene?

Ans. Polythene, after remaining in the soil, damages the ecosystem of soil by retarding its carrying capacity. Besides, it has the property of non-permeability, so it cuts off respiration of soil system which in turn not only affects plant life but also other creatures living in the soil.

* Q.7 How does polythene affect animals?

Ans. The polythene bags that lie on the roads are often eaten by stray animals which can cause their death.

Besides, it is estimated that about one billion marine animals die each year due to polythene pollution.

Q.8 What Is SRO 182?

Ans. SRO 182 (Statutory Rules and Orders) (dated 18/06/2008) is a law made by the government of Jammu and Kashmir by which use of polythene has been banned within the territorial limits of the state.

Q.9 How can we save our posterity from the harmful effects of polythene?

Ans. In order to save ourselves and our posterity from the harmful effects of polythene, it is our responsibility to completely avoid the use of polythene.