

16. Natural Resources

Q.1 . Fill in the blanks.

(i) Minerals that contain a high proportion of metal are called..... .

Ans : Ores

(ii) Deposits of common salt are also found in the earth. This salt is called..... .

Ans : Rock salt.

(iii) Iron occurring in the impure state is called..... .

Ans : Iron ore

(iv) is the most important ore of aluminium.

Ans : Bauxite

(v)is a bad conductor of electricity.

Ans : Mica

(vi) is the largest oil and gas research and production company in india.

Ans : ONGC

1. Describe natural resources with reference to the following three types.

(a) Mineral resources :

Ans : Mineral resources are found in the earth's crust, These minerals can be obtained by mining. Some of them like gold, silver, copper, platinum and bismuth are found in free state while iron, aluminum, mica are found in mixed state called ores. The ores are separated and purified to get metals and non-metals which are used in various manufacturing and chemical industries. Besides metals, there are minerals like diamond, jade, ruby, emerald, zircon, sapphire etc. which are used as gems`, coal, petroleum and natural gas are also minerals which are used as fuels. Coal, petroleum and natural gas are also minerals which are used as fuels. Thus, transport and production of electricity depend on mineral resources.

(b) Forest resources :

Ans : Forest is natural habitat of plants, animals and microbes. But forest cover of the earth is rapidly declining due to increasing human population. Forest perform certain specific certain specific protective and productive functions. Forest help in maintaining climate, rainfall and oxygen. Forest give timber for housing and furniture, beside various products like

paper, rubber and medicines. The forest help percolation of water into ground, reduce erosion of soil and control floods. Forests maintain balance of atmospheric gases, reduce evaporation and protect wildlife.

(c) Ocean resources :

Ans : Oceans provide both mineral and bio-resources. The mineral resources are Thorium in sand and mineral oil and natural gas on the sea beds. Oil and gas are used as fuels for electricity generation, motor vehicles and industries. The mineral salts yield chemicals such as Magnesium, Potassium, sulphates, Sodium. The biological resources are fish and marine organisms which give protein rich food, vitamins, iodine, common salt and nutrient minerals. Drinking water is also obtained by RO (Reverse osmosis) Technology. In addition, electric power is obtained from wave, currents and tidal energy.

2. Write answers to the following questions in your own words.

(1) What is meant by fossil fuel ? What are their types ?

Ans : The fuels which are made from the animal and dead plants that were buried millions of years ago and subjected to

extreme pressure and temperature in the earth's crust due to geological processes are called 'fossil fuels'.

(2) Make a list of the components we obtain from mineral oil.

Ans : Crude mineral oil is a mixture of many hydrocarbon compounds. Components obtained from mineral oil : Aviation petrol, gasoline, kerosene, naphtha, lubricant oils and tar.

(3) What do we get from forests ?

Ans : Forests give us strong and durable wood for construction of houses, furniture, farming implements and household articles. We obtain cellulose fibers, paper rubber, gum and aromatic substances. In addition, we get fruits, bulbs, roots, sealing wax, catechu and dyes.

(4) What are the items included in ocean resources ? What are thier uses ?

Ans : Oceans have two types of resources : (1) The non-living resources of minerals and fossil fuels. The mineral resources include Thorium and uranium from sand deposits and manganese, Magnesium, Potassium, Iodine, Sodium and Sulphate from salt. The fossil fuel Resources are crude oil and natural gas. Thorium and uranium are used for production of atomic energy and electricity while salts of elements

mentioned are used for industrial productions from soaps to cloth and paper. Oil and natural gas are used energy sources for industrial and motor vehicles. (2) The living or biological resources are fishes, dried shrimps and Bombay duck powder, shells, shark and cod fishes and sea cucumbers. Fishes provide protein food, fish liver oils give vitamins A & D, dried trash fish powder as poultry feed, shells for decorative articles and active substances from sea cucumbers for treating cancer and tumors.

(5) Why should we prevent the wastage of fuel used for vehicles ?

Ans : Petrol and diesel used in vehicles are fossil fuels made by geological processes in the earth's crust over millions of years. Their reserves are limited and demand is increasing century. On combustion in the vehicle engine, the fuels give out exhaust gases which are harmful and cause air pollution. Therefore, we should prevent wastage of fuels used in vehicles.

(6) Why is the diversity of plants and animals in the forests declining ?

Ans : Owing to increasing human population more land is required. The forests are clean cut to make land for dwelling, farming and industries. In farming only useful gains and

vegetables as food are grown. In cultivated forests suitable few varieties used for manufacturing goods are planted. Such Practices are reducing diversity of plants in forests. On account of hunting and poaching animal population is declining. Reduced diversity of plants does discourage variety of wildlife to take shelter and have food.

(7) Write the names of five minerals and the useful substances obtained from them.

Ans : Five useful minerals are iron, manganese, bauxite, copper, mica,.

(1) Iron ore : Iron occurring in the impure state is called iron ore. Iron ore is used to make a variety of articles from pins to heavy machinery. For example, farming implements rails of railway tracks, etc.

(2) Manganese : Manganese occurs in the form of various compounds such as carbonate, silicate and oxide. These are used in the preparation of medicines, electrical appliances and also for giving a pink tinge to glass.

(3) Bauxite : Bauxite is the most important ore of aluminium. It contains 55% aluminium. Aluminium is very good conductor of electricity and heat. Its density is low. Therefore, it is used mainly in aeroplanes, transport vehicles and to make electric wires.

(4) Copper : Copper is a very good conductor of electricity. Therefore, it is used to make electric wires as well as in radios, telephones, vehicles, and for making kitchen utensils and statues.

(5) Mica : Mica is used in ayurvedic medicines, dyes, electric machines and equipment, wireless communication equipment, etc.

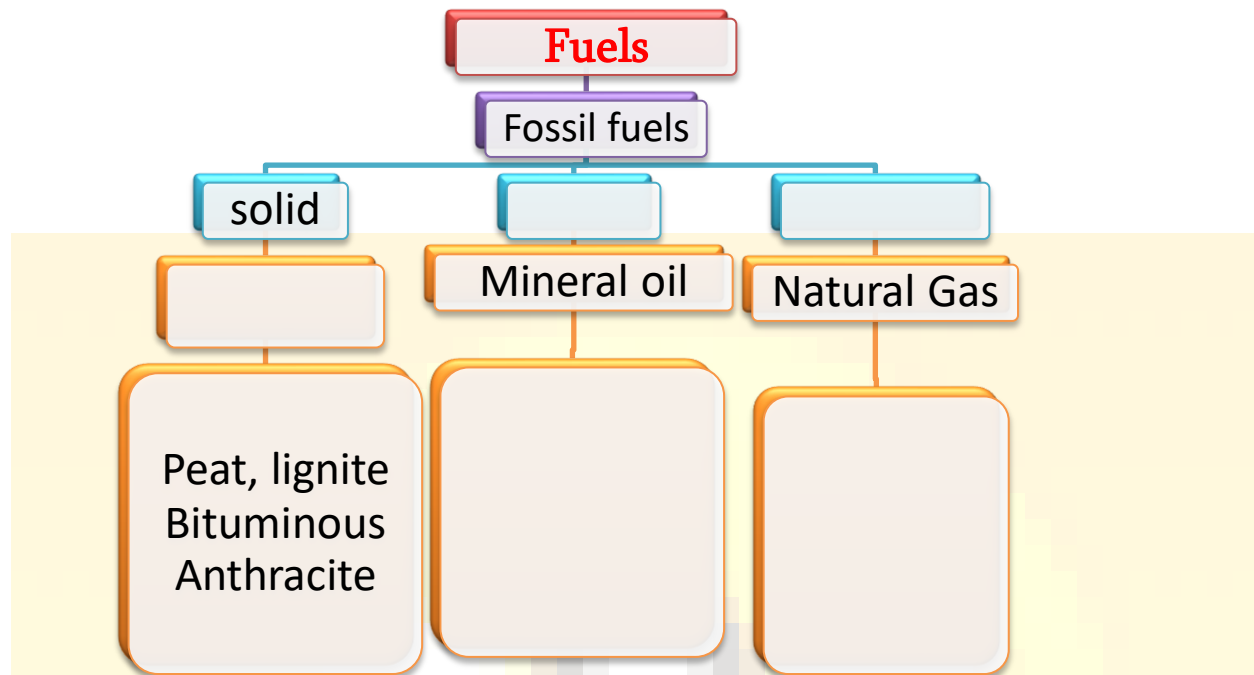
(8) Name the two important stages in the process of obtaining metals from ores ?

Ans : The two important stages in the process of obtaining metals from their ore and extraction and purification.

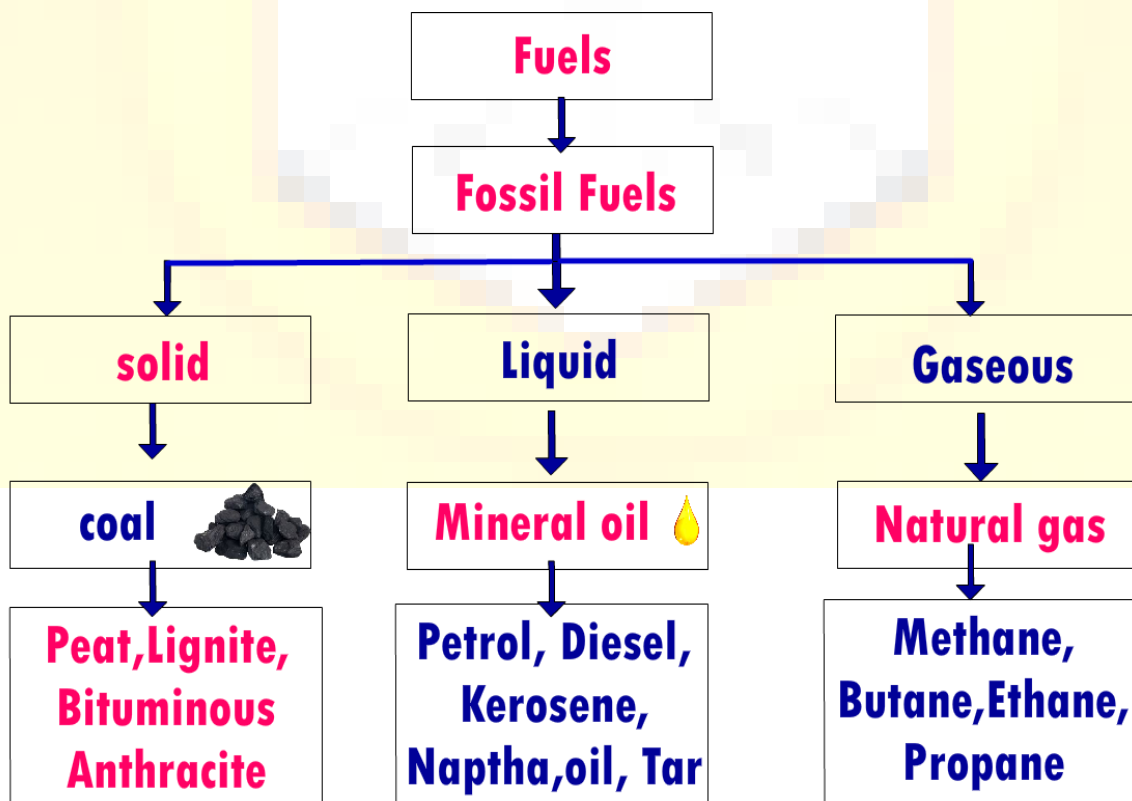
3. What steps are taken for protection and conservation of natural resources ?

Ans : Steps to protect and conserve natural resources are : (1) Natural resources are important for meeting our needs. Reserves of some resources are limited There is danger that excessive use will lead to their early depletion. We must keep a control on the use of natural resources to maintain the balance in nature.(2) The stringent restrictions/ laws regulations regarding use of forests should be strictly followed. (3) We must keep a control on use of resources to maintain balance in nature.

4. Complete the flow chart.



Answer :



5.How does the economic condition of a nation depend on its natural resources ?

Ans : From natural resources of ores and minerals mining and industries develop raw materials for manufacturing of good, appliances and articles. The oil and natural gas provide energy resources. Forests provide timber and a variety of products while ocean resources provide cheap transport, food and various chemicals. These natural resources together generate weath for the nation and income, occupations and employment for the citizens. Thus, economic condition of a nation depends on availabilities of natural resources.

Q 6. Answer the following question :

(a) Which medicinal plants will you grow on your school premises and near your house ? Why ?

Ans : Aloe vera, coriander, mint, Lomongrass, carom, calendula, stevia, Neem, Ashwagandha, Asparagus, Adulsa, Periwinkle Cinnamon, Cinchona, bel, Durva grass, tulsi, turmeric, ginger can be planted near the school premises. These plants are easy to grow and they are of immense help, therefore an attempt will be made to grow them.

(b) what useful things will we have to do without rubber if it is no longer available ?

Ans : There are more than 50,000 produce made from rubber as the raw materials . Many rubber equipment, types of the

vehicle, toys etc. Will no longer be Manufactured. These days wood is being replaced by rubber as using wood is destroying forests. But if rubber is not available, once again the trees would come under the axe.

(c) What would happen if underground mineral resources are exhausted ?

Ans : If all the minerals are exhausted from the earth, then we will not be able to get different metals and fuels . Due to lack of fuels there would be energy crisis and transportation and industries will come to an end. Man will once again become primitive aboriginal human.

Q.7 Use your brain power !

(a) Why is mineral oil called 'liquid gold'?

Ans : Because Gold means valuable. Mineral oil is also considered to be equally valuable. The whole world needs oil for the energy needs. Since it is a source of energy mineral oil is considered to be a liquid gold.

(b) Why is coal called 'black gold'?

Ans : Coal is black in colour. Coal is very important fossil fuel. Therefore , it is considered as valuable. Hence called a black gold.

(c) Why is natural gas an eco-friendly fuel?

Ans : In case of natural gas, There are no solid waste remains after the combustion. The combustion of natural gas can be kept under control from its combustion, the carbon dioxide and water are formed in very small quantities. it is non polluting. It can be transported easily and is also cheaper. Hence it is considered as eco-friendly fuel.

(d) Why are all minerals not ores?

Ans : Many minerals obtained from ores in the form of compounds. But all are not obtained form ore. Some are obtained in the free state in nature.

(e) What is meant by 'Metal mineral' and 'non-metal mineral'?

Ans : Metal minerals are those from which metals are obtained and non-metal minerals are those from which non-metals are obtained.
