

Chapter 3 - Mineral and Power Resources

1. Answer the following questions.

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

Answer: Salt, petroleum and gold are the common minerals that are used by humans on a regular basis.

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

Answer: Ores are the rocks which are mined to extract minerals from them. Minerals occur in different types of rocks. Some are found in igneous rocks, some in metamorphic rocks while others occur in sedimentary rocks. The ores of metallic minerals are found in igneous and metamorphic rock formations that form large plateaus.

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

Answer: The United Kingdom and the Netherlands are the major producers of natural gas. Natural gas is found with petroleum deposits and is released when crude oil is brought to the surface. It is used as a domestic and industrial fuel.

(iv) Which sources of energy would you suggest for (a) rural areas (b) coastal areas (c) Arid regions?

Answer:

- In rural areas Coal Solar energy, Biogas and Firewood can be used as sources of energy.
- In Coastal areas wind power, petroleum and tidal power can be used.
- In arid areas geothermal powers and solar energy are most suitable to be used.

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

Answer:

- Switch off Light, TV, and fan when not in use.
- Close tap properly so that it do not drip
- Use pressure cooker for cooking
- Prefer walking or using bicycle for short distance
- Minimize the use of refrigerator, air conditioner and lifts.

2. Tick the correct answer.

(i) Which one of the following is NOT a characteristic of minerals?

- They are created by natural processes.
- They have a definite chemical composition.
- They are inexhaustible.
- Their distribution is uneven.

Answer: C they are inexhaustible

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

- Bolivia
- Ghana
- Zimbabwe
- Chile

Answer: D Chile

(iii) Which one of the following practices will NOT conserve LPG in your kitchen.

- a. **Cooking food in an open pan kept on low flame.**
- b. Soaking the dal for some time before cooking it.
- c. Cooking food in a pressure cooker.
- d. Keeping the vegetables chopped before lighting the gas for cooking.

Answer: A Cooking food in an open pan kept on low flame

3. Give reasons.

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

Answer: Construction of a huge dam creates large scale destruction of natural vegetation and wildlife in those areas which get submerged. This is not good for the ecosystem. Hence, environmental aspects must be carefully looked into before building huge dams.

(ii) Most industries are concentrated around coal mines.

Answer: Coal is an important source of energy and hence most of the industries are located around coal mines.

(iii) Petroleum is referred to as “black gold”.

Answer: Petroleum is a thick black liquid and is a valuable resource for the industry. Hence it is also known as “Black Gold”.

(iv) Quarrying can become a major environmental concern.

Answer: Quarrying creates many problems. Fine dust particles spread in air around a quarrying site. Dust particles from quarry can cause respiratory problems. Quarrying also destroys natural vegetation and thus the home of many wild animals.

4. Distinguish between the following.

(i) Conventional and non conventional sources of energy

Answer: Conventional sources of energy are those which have been in common use for a long time. Firewood and fossil fuels are the two main conventional energy sources. Whereas, Non-Conventional sources of energy are much sorted form of energy used in modern times. The use of renewable energy sources like organic waste, tide and wind energy.

(ii) Biogas and natural gas

Answer: The gaseous fuel formed from the conversion of organic waste such as dead plant and animal material, animal dung and kitchen waste is called biogas. Biogas is a mixture of methane and carbon dioxide and produces a huge amount of organic manure each year. Whereas, Natural gas is extracted with petroleum deposits when crude oil is brought to the surface.

(iii) Ferrous and nonferrous minerals

Answer: Ferrous minerals contain iron such as iron ore, manganese and chromites, on the other hand non-ferrous minerals do not contain iron like gold, silver, copper or lead.

(iv) Metallic and nonmetallic minerals

Answer: Metallic minerals contain metal in raw form bauxite, manganese are some examples of metallic minerals. While, Non-metallic minerals do not contain metals such as Limestone, mica and gypsum.