

**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, and 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 in 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, and (c) Arid regions?**

**Answer:**

(a) In rural areas – coal, solar energy, bio-gas, and firewood can be used as sources of energy.

(b) In coastal areas – wind power, petroleum and tidal power can be used.

(c) In arid areas, geothermal power and solar energy are the most suitable sources of energy to be used.

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

**Answer:**

1. Switching off the lights, TV and electric fans, when they are not in use.
2. Closing the tap properly so that it does not drip
3. Using a pressure cooker for cooking
4. Walking or using bicycles for short distance commutes.
5. Minimising the use of refrigerators, air conditioners and lifts.

**2. Tick the correct answer.**

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

- (a) They are created by natural processes.
- (b) They have a definite chemical composition.
- (c) They are inexhaustible.
- (d) Their distribution is uneven.

**Answer:** (c) They are inexhaustible

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

- (a) Bolivia
- (b) Ghana
- (c) Zimbabwe
- (d) 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 a 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 a low flame

**3. Give reasons.**

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

**Answer:** The 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 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 various industries. 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 the air around a quarrying site. Dust particles from the 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 alternative forms of energy used in modern times. The use of renewable energy sources like organic waste, tide and wind energy come under non-conventional energy sources.

**(ii) Biogas and natural gas**

**Answer:** The gaseous fuel formed from the conversion of organic waste such as dead plants, 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 non-ferrous 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 non-metallic minerals**

**Answer:** Metallic minerals contain metal in raw form. Bauxite and manganese are some examples of metallic minerals. In contrast, metals such as limestone, mica and gypsum do not contain metal elements and are called non-metallic minerals.

