

Ch 3 Mineral and Power Resources

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Exercises

1. Answer the following questions.

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

Answer

Salt, Gold and Copper are three common minerals used everyday

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

Answer

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

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

Answer

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

(iv) Which sources of energy would you suggest for

(a) Rural areas

(b) Coastal areas

(c) Arid regions

Answer

(a) Biogas energy for rural areas

- (b) Hydel and tidal energy for coastal areas
- (c) Wind and solar energy for arid regions

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

Answer

Five ways in which energy can be saved at home:

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

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

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

2. Tick the correct answer.

(i) Which one of the following is 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. ► (c) They are inexhaustible.

(ii) Which one of the following is not a producer of mica?

- (a) Jharkhand
- (b) Karnataka
- (c) Rajasthan (d) Andhra Pradesh
- (b) Karnataka

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

- (b) Ghana
- (c) Chile
- (d) Zimbabwe
- (c) Chile

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

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

3. Give reasons.

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

Answer

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

- Dams create imbalance in the earth's equilibrium.
- Deforestation leads to environmental pollution.
- People become displaced.
- Cities / villages / towns may require shifting causing lot of hardships for the people.
- Flood threats loom large.
- Earthquake threats
- Silting of lakes is a problem.

- (ii) Most industries are concentrated around coal mines.

Answer

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

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

Answer

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

(iv) Quarrying can become a major environmental concern.

Answer

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

- It may destroy the humus of soil which is much required for the growth of plants and crops.
- It produces a lot of noise pollution due to use of explosives at times in order to break the huge chunks of rocks.
- In the process of quarrying lot of dust is generated which causes air pollution and also occupational hazards.
- Blasting done in the process of quarrying generate vibration which damage in the nearby buildings, dams or any other similar structure.

4. Distinguish between the following.

(i) Conventional and non-conventional sources of energy

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

(ii) Biogas and natural gas

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

(iii) Ferrous and non-ferrous minerals

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

(iv) Metallic and non-metallic minerals

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

Example: Bauxite, iron ore	Example: Limestone, gypsum
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