

**BOOK WORK**

- A. Choose the correct answer:-
1. Iron ore mines are found in.....
    - a. Jharkhand
  2. Mexico is the largest producer of.....
    - b. silver
  3. India is the.....biggest producer of iron ore in the world.
    - a. 9<sup>th</sup>
  4. Bauxite reserves are found in.....
    - a. Odisha
  5. ....is one of the major producers of oil in India.
    - a. Digboi
- B. Fill in the blanks with suitable words:-
1. **Metallic** and **non-metallic** are the two types of minerals.
  2. **Copper** is used for making utensils.
  3. Hydroelectricity is electricity that is made by the movements of **water**.
  4. **Underground** mining is also called sub-surface mining.
  5. Metals can be reused if we recycle **Minerals**.
- C. State whether the sentences are true or false:-
1. The amount of mineral resource on Earth is limited. **(False)**
  2. Minerals are brought into Earth from other planets. **(False)**
  3. Karnataka has deposits of manganese. **(True)**
  4. Coal and petroleum are non-metallic minerals. **(True)**
  5. The process of purification of a substance is called mining. **(False)**

**NOTEBOOK WORK**

**D. Answer the following in 1-2 sentences:-**

1. What indicates the economic development of a country?

Ans.1 The availability and consumption of minerals is taken as an important indicator to understand the economic development of a country.

2. Which states have oil fields in India?

Ans.2 In India, Assam, Mumbai and Gujarat are the major producers of oil.

3. Where are metallic minerals found in India?

Ans.3 Most of the deposits of iron ore are located in the Archaen rocks of Jharkhand, Orissa, Madhya Pradesh, Chhattisgarh, Karnataka and Tamil Nadu; of chromite in Orissa and Karnataka; of bauxite in Jharkhand, Madhya Pradesh, Chhattisgarh and Gujarat; of manganese in Madhya Pradesh, Jharkhand, Orissa and Maharashtra etc.

4. Where are non-metallic minerals found in India?

Ans.4 Coal mines are found in Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Odisha, Madhya Pradesh, Maharashtra, Tamil Nadu and West Bengal. Petroleum in Assam, Mumbai and Gujarat etc.

5. What is mining?

Ans.5 The process of extracting minerals from their occurring place is called mining.

**E. Answer the following in 3-4 sentences:-**

1. Write a short note on minerals.

Ans.1 Minerals are substances that can be found naturally in Earth. They are important parts of soils and rocks. Rocks that contain minerals are also called ores. Minerals can also be found under the ground since with the passage of time rocks are broken down and soil collects over them.

2. Define metallic minerals. Mention any three common characteristics.

Ans.2 Minerals like iron, copper, gold, silver, bauxite from which new substances can be produced are called metallic minerals. Common characteristics of metallic minerals are:-

- i. They can be melted to make new products.
- ii. Metallic minerals are hardy and cannot be broken easily.
- iii. They have a shine of their own.

3. Define non-metallic minerals.

Ans.3 Non-metallic minerals are substances from which new substances cannot be made. Coal, petroleum, natural gas, limestone, mica, precious stones etc. are non-metallic minerals.

4. How does a dam work to generate electricity?

Ans.4 Hydropower plants on dams capture the energy of falling water to generate electricity. A turbine converts the kinetic energy of falling water into mechanical energy. Then a generator converts the mechanical energy from the turbine into electrical energy.

5. Why is hydroelectric power important?

Ans.5 Hydropower is fueled by water, so it's a clean fuel source, meaning it won't pollute the air like power plants that burn fossil fuels, such as coal or natural gas.

**F. Answer the following in 8-10 sentences:-**

1. Discuss briefly the leading producers of minerals in the world.

Ans.1 The distribution of the minerals in the world is highly uneven because of geological events in the past. As of 2015, India is the fourth largest producer of coal and iron-ore, fifth largest producer of bauxite and the twelfth largest producer of uranium in the world.

2. How is coal removed from the Earth? Elaborate.

Ans.2 Coal can be extracted from the earth either by surface mining or underground mining. If coal is less than 61 meters (200 feet) underground, it can be extracted through surface mining. In surface mining, workers simply remove any overlying sediment, vegetation, and rock, called overburden.

3. Explain the various types of mining.

Ans.3 Mining techniques depend on the site of excavation. Some of the types of mining techniques commonly used are:-

- i. Surface mining:-Surface mining is done by clearing the surface vegetation, dirt. Sometimes few layers of bedrock are also removed for reaching buried ore deposits. Surface mining can be open-pit mining, quarrying, strip mining and mountain-top removal.
- ii. Underground mining:-It is also called sub-surface mining. Tunnels or shafts are dug into the earth to reach buried ore deposits. Ore are brought to the surface through the tunnels and shafts for processing.
- iii. High wall mining:-It is a form of surface mining that evolved from auger mining. This technique is used to recover additional coal from a seam located behind a high wall produced either by stripping or open-pit mining.

4. How does solar energy work? Give some of its uses.

Ans.4 Solar energy is radiant light and heat from the Sun harvested using a range of technologies such as solar heating, solar thermal energy etc.

5. Why should minerals be conserved? Suggest a few ways to conserve our mineral resources.

Ans.5 Conservation of mineral resources is essential because they are a country's valuable possession. Minerals should be used in a planned and sustainable manner. Technology

should be upgraded to allow the use of low-grade ore at low costs. Recycling of metals also a fruitful method of conservation of mineral resources.

**I. Picture study:-**

1. A windmill is a structure used to harness the power of the wind for purposes like grinding grain, pumping water, and generating electricity.

2. i. Muppandal windfarm - Tamil Nadu

ii. Jaisalmer Wind Park - Rajasthan

iii. Brahmanvel windfarm - Maharashtra

iv. Dhalgaon windfarm - Maharashtra