

NCERT Solutions for Class 10 Geography Chapter 5 Minerals and Energy Resources Question Answer

1. Multiple choice questions.

(i) Which one of the following minerals is formed by the decomposition of rocks, leaving a residual mass of weathered material?

(a) coal (b) bauxite (c) gold (d) zinc

Ans:(a) coal

(ii) Koderma, in Jharkhand is the leading producer of which one of the following minerals?

(a) bauxite (b) mica (c) iron ore (d) copper

Ans:(b) mica

(iii) Minerals are deposited and accumulated in the strata of which of the following rocks?

(a) sedimentary rocks (b) metamorphic rocks (c) igneous rocks (d) none of the above

Ans:(a) sedimentary rocks

(iv) Which one of the following minerals is contained in the Monazite sand?

(a) oil (b) uranium (c) thorium (d) coal

Ans: (c) thorium

2. Answer the following questions in about 30 words.

(i) **Distinguish between the following in not more than 30 words.**

(a) ferrous and non-ferrous minerals

(b) conventional and non-conventional sources of energy

Ans:(a) ferrous and non-ferrous minerals:

Distinguish between the ferrous and non-ferrous minerals

Ferrous Minerals

1. These minerals have iron in them.
2. They offer a solid foundation for the growth of the metallurgical industry.
3. Three-fourths of India's total mineral production consists of ferrous minerals.

Non-ferrous Minerals

1. There is no iron in these minerals.
2. Many metallurgical, engineering and electrical industries depend on them greatly.
3. India has rather modest non-ferrous mineral deposits.
Examples: Bauxite, lead, and gold,

Example: Manganese and iron ore

(b) conventional and non-conventional sources of energy

Distinguish between the conventional and non-conventional sources of energy

Conventional sources of energy

1. .Conventional energy sources (such as coal, petroleum, and natural gas) are nonrenewable.
2. They've been around for a long time. Firewood and coal, for example, have been used for a long time.
3. When most of these energy sources (such as coal and firewood) are used, they emit pollutants.

Non-conventional sources of energy

1. Renewable energy sources include non-conventional energy sources such as solar and wind energy.
2. These sources have only lately emerged and are continually evolving. For example, solar panel electricity generation technology has recently advanced.
3. They do not pollute the environment (e.g. solar energy, geothermal energy, etc.)

(ii) What is a mineral?

A mineral is a natural homogeneous substance having a recognizable internal structure. Minerals occur in nature in a variety of forms, ranging from the hardest diamond to the softest talc.

Gold, silver, and carbon are elements that can be used to create minerals on their own. They are known as native elements.

(iii) How are minerals formed in igneous and metamorphic rocks?

Minerals are found in igneous and metamorphic rocks in cracks, fissures, and faults. Smaller occurrences are known as veins, whereas bigger ones are known as lodes. It can be created as follows:

- When liquid/molten and gaseous minerals are driven upward via cavities toward the earth's surface, they cool and solidify to create veins or lodes.
- Metals such as tin, copper, zinc, and lead are extracted from veins and lodes.

(iv) Why do we need to conserve mineral resources?

We must conserve mineral resources because.

(a) they are unevenly distributed across the Earth's surface and limited. Mineral resources are scarce, and the natural replenishment process takes too long (billions of years), and the majority of them are non-renewable.

(b) They are nonrenewable energy sources. So it's time to wake up and start conserving mineral resources for future use.

(c) They are required for economic development and industrialization.

(d) They are in short supply.

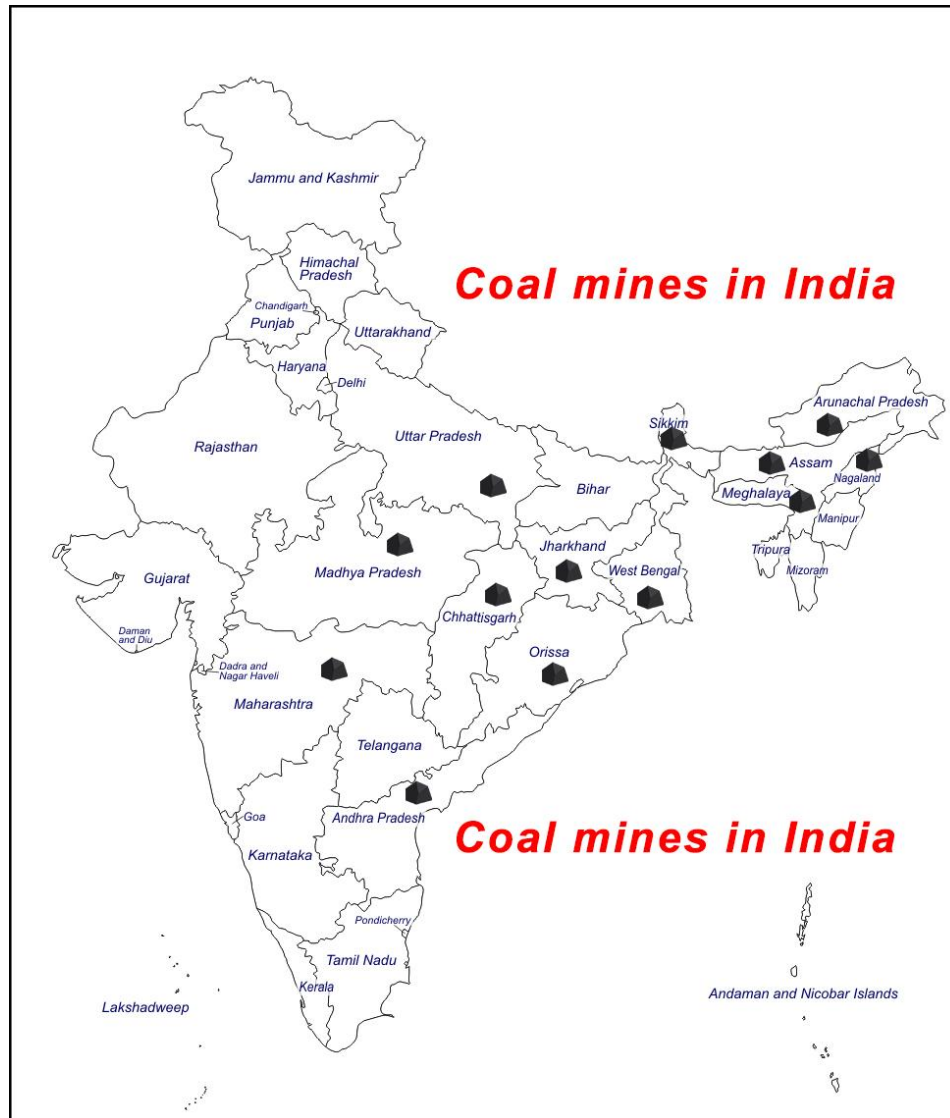
(e) Consumption of ores will raise the cost of extraction and result in a decline in both quality and quantity as time passes.

3. Answer the following questions in about 120 words.

(i) Describe the distribution of coal in India.

The majority of coal fields in India are located in the east. The greatest concentration of coalfields in India is in the north-eastern region of the peninsular plateau, which includes parts of Jharkhand, Chhattisgarh, Orissa, and eastern Madhya Pradesh, as well as the western part of West Bengal bordering Jharkhand.

- Coal resources are also abundant in the southern region of Andhra Pradesh and the eastern part of Maharashtra. Jharkhand, Chhattisgarh, Orissa, and Madhya Pradesh contribute two-thirds of all coal produced in India. Jharkhand and Chhattisgarh account for almost 40% of total coal production in India.



(ii) Why do you think that solar energy has a bright future in India?

India, as a tropical country, receives a lot of sunlight. As a result, there are several opportunities to harness solar energy. Solar energy is a non-traditional energy source, although it is gaining popularity in rural and remote areas, reducing households' reliance on firewood and dung cakes. This, in turn, aids in environmental conservation and guarantees an appropriate supply of manure in agriculture.

- Because the Tropic of Cancer crosses virtually through the center of India, the country experiences an average of 250-300 sunny days every year.
- It is predicted that India receives 5000 trillion kWh of solar energy per year.
- In India, many government programmes for solar energy are being implemented, including rooftop schemes, solar park schemes, visibility gap funding, the UDAY scheme, solar pumps, and the establishment of solar cities.
- India is a member of the International Solar Alliance, which has its headquarters in Gurugram, India.