

India: Minerals and Energy Resources Class 10 GSEB Solutions

Social Science Chapter 12

Gujarat Board Class 10 Social Science India: Minerals and Energy Resources Textbook Questions and Answers

I. Answer the following questions in detail.

Question 1.

Give a detail information about mineral oil.

Answer:

Mineral oil or petroleum is found in the strata of stratified rocks which contain limestone, shale, etc. Mineral oil was formed when large quantities of animals and vegetation got buried under the earth containing sedimentary rocks and remained there for thousands of years.

The heat and pressure of the interior portion of the earth converted the buried matter into viscous liquid containing hydrocarbons i.e., mineral oil. When tectonic movement took place in the earth, it pushed this liquid to the higher strata of earth. Some part of liquid also got pushed towards the seafloor.

Question 2.

State the remedies to preserve the minerals.

Answer:

Remedies for preserving minerals:

1. Use of proper technology: Wastage of minerals can be reduced by making use of proper and advanced technology for extracting minerals.
2. Recycling: The scrap of minerals like iron, copper, aluminum and tin should be recycled and reused.
3. Alternate use of minerals: Alternatives should be found out for minerals which exist in less quantity. For example, making use of solar energy instead of electricity, aluminum instead of copper, CNG instead of petro, etc.
4. Use of Non-conventional means: The use of non-conventional sources like water, solar, wind, biogas, etc. should be increased.
5. Sustainability: Attempts should be made to maintain the purity of the environment so that the coming generations can have a clean environment. Attempts should be made for pollution-free environment.
6. Proper planning: Once the mineral reserves are properly estimated, planning should be done for utilizing them effectively and efficiently. This step is very important to preserve and enhance the minerals.



Question 3.

Write about electricity in brief.

Answer:

Electricity was invented during the industrial revolution. Electricity is used for industrial purpose and that for domestic purposes. At industrial level, it is used to run the industries, machines, transportation, etc. At domestic level it is used for running various household gadgets like fans, televisions, radios, washing machines, refrigerators, tube lights, etc.

There are mainly three forms of electricity. They are:

1. Thermal electricity,
2. Hydroelectricity and
3. Nuclear electricity.

Coal, mineral oil, natural gas, etc are conventional sources of producing electricity.

Electricity produced through flowing water or rivers and dams is an example of hydroelectricity whereas electricity produced through atomic minerals is an example of nuclear electricity. Minerals are scarce in comparison to their usage. Hence, it is extremely important to switch to non-conventional sources of energy like solar energy, wind energy, tidal energy and geothermal energy to produce power.

II. Answer the following questions pointwise.

Question 1.

State the uses of limestone.

Answer:

Limestone is a sedimentary rock which mainly consists of calcium carbonate.

Uses:

1. Limestone is largely used in producing – cement.
2. It is also used for melting iron, in chemical industry, in making soda ash, soap, colours and chemicals, building construction, paper and for refining sugar.

Producing regions:

1. Andhra Pradesh, Rajasthan, Madhya Pradesh, Gujarat and Tamil Nadu produce about 70% of India's limestone.
2. Chhattisgarh, Karnataka, Maharashtra, Himachal Pradesh are other states producing limestone.
3. Jamnagar, Kachchh, Amreli and Kheda districts are major limestone producing regions of Gujarat.
4. Limestone is also produced in Banaskantha, Mahesana, Sabarkantha, Vadodara Panchmahal, Bharuch, Narmada, Surat, Bhavnagar and Rajkot.
5. The rocks found in Jamnagar district contain about 97% lime.

Question 2.

State about Mica.

Answer:



India ranks first in the world mica production. It is fire resistant and a bad conductor of electricity. So, it is used in making electrical goods such as electric motors, dynamo, radio, telephone, cars, steamers, etc. Producing regions: Bihar, Jharkhand, Andhra Pradesh and Rajasthan are major producers of mica in India. Mica is also found in Karnataka, West Bengal and Tamil Nadu. India is a large producer of a type of mica called muscovite mica.

Question 3.

Mention the utility of Copper.

Answer:

Copper is used since primitive times. In fact, it was the first metal to be used by man. Copper has quite good mixing property which makes it a very important metal. When copper is mixed with tin it becomes bell metal. Similarly when copper is mixed with zinc it becomes brass.

Uses: Copper is good conductor of electricity. So, it is used in making electric wires, telephone, radio, television, etc. It is also used in making coils of refrigerators and air conditioner. Copper is also used in insecticides, explosive, colored glass, coins and in printing.

Producing states: Copper is produced mainly by Jharkhand, Madhya Pradesh and Rajasthan. Copper is also found in Sikkim and Andhra Pradesh, Bihar, Karnataka, Maharashtra, Tamil Nadu, Himachal Pradesh and Uttarakhand.

Question 4.

Write about the classification of minerals.

Answer:

With respect to their use, minerals can be classified as metallic minerals, non-metallic minerals and minerals used as energy resources.

III. Answer the following questions in brief.

Question 1.

Modern age is known as mineral age. Why?

Answer:

Requirements of primitive man were limited. He worked only to sustain his life. Man conquered the heights of evolution and technological development. Minerals play a very large role in the human progress. In stone age, man used stones for hunting but now he is traveling into space. The use of minerals has tremendously increased after the industrial revolution.

With time new inventions and developments keep on taking place in all the fields. Every day there is some or the other product coming up in the world. All these inventions and discoveries result in producing products to cater the demand. We use a lot of gadgets,



vehicles, services, etc. compared to the past. All these involve use of minerals. Hence, we can say that modern age is mineral age.

Question 2.

Why there is an increase in the usage of non-conventional energy today?

Answer:

Coal and mineral oil are conventional but non-renewable sources of energy. This means they are available in limited quantity and will exhaust one day. To overcome this problem, the world started means to conserve them and find out alternative sources of energy. As a result man started making use of alternate sources such as wind energy, solar energy, biogas, tidal energy and geothermal energy.

All these are renewable energy resources or say inexhaustible energy resources. Many countries have already started making use of these energy resources. US, Russia, France, Canada, Australia, Netherlands and Japan are advancing in this field effectively. In 1981, India formed 'Commission for Additional Sources of Energy (CASE) for identifying and using renewable sources of energy. In Gujarat, Gujarat Energy Development Agency (GEDA) is working in this direction.

Question 3.

State the major places where iron is available.

Answer:

Iron producing states: Karnataka produces maximum amount of iron ore in India. Iron is also obtained from Odisha, Jharkhand, Chhattisgarh and Andhra Pradesh in good quantity. Iron ore is also found in Goa, Rajasthan, Tamil Nadu, Maharashtra, Madhya Pradesh, Kerala, Uttar Pradesh and Assam.

Question 4.

Which states in India produces manganese?

Answer:

Odisha, Karnataka, Madhya Pradesh and Goa are major manganese producing states. Manganese is also obtained from Andhra Pradesh, Jharkhand, Rajasthan and Gujarat.

IV. Select the correct option for the following questions and write answer:

Question 1.

A school in Palampur wants to show a bio-gas plant to its students of class 10th. Which nearest place will it select?

- (a) Dhuvaran
- (b) Dantiwada
- (c) Maithan
- (d) Undrel

Answer:

- (a) Dhuvaran



Question 2.

Some officers from Government of India want to visit Gujarat to survey the possibility of using the geothermal energy in future in Gujarat. Which place they should avoid?

- (a) Tulsishyam
- (b) Unai
- (c) Saputara
- (d) Lasundra

Answer:

(c) Saputara

Question 3.

Match the correct pairs and find the answer:

- (a) $(a - 1)$, $(b - 3)$, $(c - 2)$, $(d - 4)$
- (b) $(a - 3)$, $(a - 4)$, $(c - 1)$, $(d - 2)$
- (c) $(a - 2)$, $(a - 2)$, $(c - 4)$, $(d - 3)$
- (d) $(a - 4)$, $(b - 1)$, $(c - 3)$, $(d - 2)$

Answer:

(b) $(a - 3)$, $(a - 4)$, $(c - 1)$, $(d - 2)$

