Question-1
Distinguish between the following
(a) Ferrous and non-ferrous minerals
(b) Conventional and non-conventional sources of energy.
Solution:
(a) Ferrous Minerals:
Ferrous minerals account for about three fourths of the total value of the production of metallic minerals. They provide a strong base for the development of metallurgical industries. India exports substantial quantities of ferrous minerals after meeting her internal demands.
(b) Non-ferrous Minerals:
India's reserves and production of non- ferrous minerals is not very satisfactory. However, these minerals, which include copper, bauxite, lead, zinc and gold, play a vital role in a number of metallurgical, engineering and electrical industries. Let us study the distribution of copper and bauxite.
Conventional Sources of Energy:
1. Conventional source of energy have been used since the early times.
2. Coal, Petroleum, natural gas, hydro-electricity, thermal power are the source of energy.
3. All conventional sources of energy except hydro-electricity are exhaustible.
4. These source cause environmental pollution.
5. These source require huge capital.
Non-Conventional Sources of Energy:
1. Non- conventional source of energy have came into the use only recently.
2. Wind energy, solar energy, tidal energy, geothermal, biogas are example of these source of energy.
3. Most of the non- conventional sources of energy are inexhaustible.
4. These sources do not cause environmental pollution.
5. Small amount of money is sufficient to have these sources.

Question-2
What is a mineral?
Solution:
Geologists define a mineral as a "homogenous, naturally occurring substance with a definable internal structure." Minerals are found in varied forms in nature, ranging from the hardest diamond to the softest one. Minerals are an indispensable part of our lives. Almost everything we use, from a tiny pin to a towering building or a big ship, all are made from minerals. The railway lines and the tarmac (paving) of the roads, our implements and machinery too are made from minerals. Cars, buses, trains, aeroplanes are manufactured from minerals and run on power resources derived from the earth. Even the food that we eat contains minerals. In all stages of development, human beings have used minerals for their livelihood, decoration, festivities, religious and ceremonial rites.

Question-3
How are minerals formed in igneous and metamorphic rocks?
Solution:

In igneous and metamorphic rocks, minerals may occur in the cracks, crevices, faults or joints. The smaller occurrences are called veins and the larger are called lodes. In most cases, they are formed when minerals in liquid, molten and gaseous forms are forced upward through cavities towards the earth's surface. They cool and solidify as they rise. Major metallic minerals like tin, copper, zinc and lead etc. are obtained from veins and lodes.

Question-4
How do we need to conserve mineral resources?
Solution:
In order to conserve mineral resources, we must see to that our consumption of minerals does not increase our wants. We must remember that these resources are one of the greatest gifts of God and we must use these in such a manner that our future generations also enjoy this gift.

Question-5
Describe the distribution of coal in India.
Solution:
In India coal occurs in rock series of two main geological ages, namely Gondwana, a little over 200 million years in age and in tertiary deposits which are only about 55 million years old. The major resources of Gondwana coal, which are metallurgical coal, are located in Damodar valley (West Bengal-Jharkhand). Jharia, Raniganj, Bokaro are important coalfields. The Godavari, Mahanadi, Son and Wardha valleys also contain coal deposits. Tertiary coals occur in the north eastern states of Meghalaya, Assam, Arunachal Pradesh and Nagaland. Jharkhand is the largest producer where Jharia, Bokaro, karampur , Palamu are the major coal fields. In West Bengal, Raniganj, Jalpaiguri and Darjeeling are the coal fields. Sarguja, Bilaspur, Raigarh and Bastar districts are coal fields found in Chhatisgarh. M.P. has coal fields in Chinaware district and in Maharashtra, Chanda is the main field.

Question-6
Why do you think that solar energy has a bright future in India?
Solution:
Solar energy has bright future in India because
a. India is blessed with plenty of solar energy because most part of the country receive bright monsoon period.
b. India has developed technology to use solar energy for cooking, water heating, space heating, crop drying, etc.
c. It is the abundant, inexhaustible and universal source of energy.
d. India is tropical country.
e. It is pollution free.

Question-7
Describe the impact of globalisation on Indian agriculture.
Solution:
Globalisation is the new trend in the world scenario, which aims at integrating our economy with that of the world:
a. Its aim is to be realised within a certain time frame.
b. It is based on free and open international trade.
c. It ensures that only quality and competitive goods would survive the world market.
Impact
a. Indian farmers now are exposed to new industrial environment. They would have to complete with other farmers of other countries in producing quality and competitive goods.
b. With the use of favourable climatic conditions and soil conditions, improved and new implements, efficient labour we would have to produce goods, which could complete in the world markets.
c. India would need the technologies being used by foreign countries. Infrastructure like development of roads, electricity, irrigation and credit facilities will have to be developed.

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