Minerals and Energy Resources (CH-5) Important Questions Class 10 Social Science (Geography) Chapter 5

Very Short answer type Questions

Q1. Where does the minerals occur in sedimentary rocks?

Ans. In beds or layers.

Q2. Which is the finest quality of iron ore?

Ans. Magnetite Content of iron up to 70%

Q3. Where does Manganese used?

Ans. It is used in manufacturing bleaching powder, insecticides and paints.

Q4. In which industry lime stone is used as a basic raw material?

Ans. Cement Industry.

Q5. Which mineral is found in Monazite sands?

Ans. Thorium.

Q6. Which are the non-conventional energy resources?

Ans. Wind energy, solar energy, tidal energy, Geo-thermal energy.

Q7. Where does the largest solar plant of India is located?

Ans. At Madhapur near Bhuj (Gujarat).

Q8. Where does the two experimental projects have been set up in India to harness geothermal energy?

Ans. In the Parvati Vally near Manikaran in Himachal Pradesh and in the Puga Valley, Ladakh.

Q9. What is Rat- Hole mining?

Ans. In Jowai and Cherapunjee the coal mining is done by family members in the form of a long narrow tunnel, known as a Rat-Hole mining.

Q10. Why Mumbai high is famous for?

Ans. The largest Petroleum producing area of India.63%

Q11. Name the hardest mineral?

Ans. Diamond is the hardest mineral.

Q12. Which minerals largely derived from the ocean waters?

Ans. Magnesium, Common salt and bromine

Q13. Name the mineral in which India is the leading producer in the world?

Ans. Mica.

Q14. State the importance and uses of copper?

Ans. It is malleable, ductile and a good conductor. Copper is mainly used in electrical cables, electronic and chemical industries

Q15. Name the highest quality hard coal?

Ans. Anthracite.

Q16. Where does the largest wind farm cluster is found in India?

Ans. Nagarcoil (Tamil Nadu) and Jaisalmer (Rajasthan).

Short/Long Answer type questions (3/5 Marks)

Q1. How minerals are significant for us?

Ans. Almost everything we use in our daily life, from tiny pin to a big ship all are made from minerals. Towering buildings, machinery, utensils, means of ransport, railway line and bridges too are made from minerals. Even the
food that we eat contains the minerals.

Q2. How many types of minerals are there and how these are classified?

Ans. There are three types of minerals

- Metallic minerals
- Non-Metallic minerals and
- Energy minerals.
  This classification is based on their colour, shine, hardness, density and crystallisation.

Q3. How minerals are formed in igneous and metamorphic rocks?

Ans. In igneous and metamorphic rocks minerals may occur in the cracks, crvices, faults and joints. The smaller occurences 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.

Q4. Distinguish between Ferrous and Non-Ferrous minerals?

Ans.

Ferrous Minerals

- Containing iron
- Iron, ore, manganese, nickel, cobalt etc,

Non-Ferrous Minerals

- No iron portion
- Copper, lead, tin, bauxite etc.

Q5. Mention about three major iron ore belts of India?

Ans. "There are four major iron ore belts in India-

- Orissa-Jharkhand belt
- Maharashtra-Goa belt
- Bellary-Chitradurga-Chikmaglur-Tumkur belt
- Durg-Bastar-Chandrapur belt

Q6. In which form Mica is found? Mention it's major deposits area in India? What are the main uses of Mica?

Ans. Mica is made up of a series of plates or leaves. Mica deposits are found in-

- The northern edge of the Chota Nagpur plateau.
- Koderma Gaya-Hazaribagh belt of Jharkhand and Bihar.
- Around Ajmer in Rajasthan.
- Nellore mica belt of Andhra Pradesh.
- Mica is used in Electric and electronic industries.

Q7. Name the Natural gas pipe line popular as Artery of gas transport in India? Mention the name of two key users of natural gas?

Ans. The 1700 km long Hazira-Vijaipur-Jagdishpur cross country gas pipeline links Mumbai High and Bassien with the fertilizer, power and industrial complexes in western and northern India. The power and fertilizer industries are the key users of natural gas. Use of Compressed Natural Gas (CNG)for vehicles to replace liquid fuels is gaining popularity in the country.

Q8. 'The future of Solar energy is bright in India.'Why?

Ans.

- India is a tropical country.
- It is pollution free.
- It is a renewable resource.
- Rural house holds can easily take it's advantage.

Q9. Differenceate between Thermal power and Hydel power?

Ans.

Thermal Power (Thermal electricity)

- This electricity is generated by the use of coal, petroleum and natural gas.
- This is full of pollution.
- Not a permanent source of energy.
- Based on non-renewable resources like Coal
- More then 310 thermal power stations are in India like Talcher, Panki, Namrup, Uran, Neyveli etc.

Hydel Power (Hydro electricity)

- This is generated by fast flowing water power which force to run the turbines.
- This is pollution free.
- A permanent energy resource.
- Based on renewable resource ie. Water
- India has a number of multi-purpose project like the Bhakra Nangal, Damodar valley corporation, the Kopili Hydel Project etc.

Q10. Why Mumbai high is famous? What is it's contribution in National economy?

Ans. The off-shore oil field near Mumbai is called Mumbai High. It produces 63% of total oil production of India. Thus Foreign currency is saved.

Q11. Why does the mining industry is called a killer industry?

Ans. This industry effects the health of the miners and the environment.

- They have to breath in dust and noxious fumes
- Miners inhales this regularly which make vulnerable to pulmonary diseases.
- The risk of collapsing mine roofs, inundation and fires in coalmine are a constant threat to miners
- The water sources in the region get contaminated due to mining
- Dumping of waste and slurry leads to degradation of land, soil and increase in stream and river pollution.

Q12. How can we save or conserve energy?

Ans.

- The electric switches should be off when not in use.
- Public transport or pooling should be used.
- As the conventional sources of energy are limited they should be used carefully.
- Renewable resources should be used.
- The power saving instruments and devices should be used.

Q13. Why do we need to conserve the minerals ? Mention some ways of mineral conversation.

Ans.

- Minerals are the base of our agriculture and Industries.
- Are finite and non-renewable.
- The stock is very limited. The total deposits is an insignificant fraction i.e. one percent of the earth's crust.
- Takes millions of years to be created and concentrated.
- We are rapidly consuming mineral resources.

Methods of conservation of Resources-

- Low wastage during mining and excavation.
- As far as possible use wood or plastic (Certified).
- Re use the junk waste and old things.
- Recycle metals, use scrap metals and search other substitute.
- Use in a planned and sustainable manner.

Q14. "Solar energy is an important energy resource for India in future." Write your views in favour of the statement.

Ans. India is a tropical country. It has enormous possibilities of tapping solar energy. Photovoltaic technology converts sunlight directly into electricity. India has a great potential of Solar energy. If used in appropriate way, it can prove beneficial in the future. Solar energy is becoming fast popular in different parts of the country, especially in rural and remote areas. It can be used for cooking, heating of water, pumping, refrigeration, street lighting and room heating as well as water boiling in cold areas. The largest solar plant in India is located at Madhapur near Bhuj in Gujarat. Here the Solar energy is used to sterilize the big milk cans. Solar energy can be used in future by
following ways:

- For environmental conservation
- To generate and provide electricity
- To provide fuel to vehicles
- To run machines and tools

- To minimize the dependence of rural households on firewood and

dung cakes and providing them a source of lighting and cooking and thus giving a lot of organic manure for agriculture.

Q15. Why the conservation of mineral resources is essential? Write three measures of conservation of mineral resources?

Ans. Minerals are required in all spheres of our life and thus we are depended on minerals. Agriculture, industries and domestic purposes we are consuming minerals rapidly. This consumption is very fast and sometimes even more than the requirements. Mineral formation requires millions of years to be formed and concentrated, So the judicious use of these is essential. To save these valuable resources from exhaustion and to preserve them for future generation as well, we should conserve our mineral resources. Some of the methods are:

- Judicious use and less consumption
- Improved technologies need to be constantly evolved to allow use of low grade ores at low costs.
- Causing minimum wastage of minerals during the process of mining and processing of minerals.
- Using minerals in a planned manner by adopting the policy of recycle and reuse.
- Searching some other eco-friendly options like CNG.