INDIAN SCHOOL AL WADI AL KABIR

Class: X	Department: Social Science	Sub: Geography
Chapter-5 Question Bank: No.3	Topic: Minerals and Energy Resources	Year: 2024-25

1	**What is a 'Mineral'?** Ans. Geologists define mineral as a "homogenous, naturally occurring substance with a definable internal structure". E.g. Quartz, Mica, Feldspar etc.
2	**What is an 'ore'?** Ans. Ore is a mineral from which a metal can be extracted economically. E.g. Magnetite (Iron), Pyrite (Copper), Bauxite (Aluminium)
3	**What are 'rocks'?** Ans. Rocks are the combinations of homogenous substances called minerals. Some rocks, for instance limestone, consist of a single mineral only, but majority of the rock consist of several minerals in varying proportions.
4	**What are 'Placer deposits'?** Ans. Alluvial deposits with some minerals in the valley floors and the base of hills are called Placer deposits. E.g. Gold, Silver, Platinum etc.
5	**How are minerals formed in igneous and metamorphic rocks?** 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. Major metallic minerals like tin, copper, zinc and lead etc. are obtained from veins and lodes.
6	**Describe the four major Iron ore belts of India.** **(i) Odisha-Jharkhand Belt:-** In Odisha, high grade hematite ore is found in Badampahar mines in the Mayurbhanj and Kendujhar districts. In the adjoining Singhbhum district of Jharkhand; hematite iron ore is mined in Goa and Noamundi. **(ii) Durg-Bastar-Chandrapu**r:- It lies in Chhattisgarh and Maharashtra. Very high-grade hematite is found in the famous Bailadila range of hills in the Bastar district of Chhattisgarh. It has the best physical properties needed for steel making; iron ore from these mines is exported to Japan, South Korea via the Vishakhapatnam port. **(iii) Bellary-Chikmaglur-Chitradurga:-** Tumkur belt in Karnataka has large reserves of iron ore. The Kudermukh mines located in the western Ghats of Karnataka are a 100 per cent export unit. Kudermukh deposits are known to be one of the largest in the world. **(iv) Maharashtra - Goa belt:-** It includes the state of Goa, and Ratnagiri district of Maharashtra. Though the ores are not of very high quality, yet they are efficiently exploited. Iron ore is exported through the **Marmagao** port.
7	**State two main uses of Copper. Also, mention four major Copper producing districts in India?** Ans: (i) Uses – It is used for making electric wires, utensils and alloys.

	(ii) Major Copper producing districts/states – Khetri in Rajasthan, Nellore in Andhra Pradesh, Madhya Pradesh and Karnataka.
8	**State the uses of limestone and largest producer state of lime stone?** Ans: About 75% of limestone is used in the cement industry, rest is used for smelting of iron and in chemical industries. Leading producer of limestone is Madhya Pradesh.
9	**Describe the distribution of coal in India?** Ans: (i) Anthracite is found in Jammu and Kashmir (ii) Bituminous is found in Jharkhand, Orissa, West Bengal, Chhattisgarh and Madhya Pradesh. (iii) Lignite is found in Tamil Nadu and Rajasthan.
10	**"Hydel power is more important source of energy than thermal power" Discuss this fact with three examples?** Ans: Hydel power is a renewable source as it is produced from flowing or falling water. On the other hand, thermal power is produced from coal, petroleum or natural gas which are non-renewable and causing pollution. Hydel power is neat and clean and pollution free with less maintenance cost.
11	**Coal is an important source of energy even today? Give reasons.** Ans: (i) It is most important for the Iron and Steel Industry. (ii) Major raw materials for chemical industries. (iii) Over two-third of the coal in India is used to produce electricity in thermal power plant.
12	**What is the importance of natural gas as a source of fuel?** Ans: (i) domestic as well as industrial raw material (ii) can be easily transported through pipelines (iii) setting up of fertilizer plant and power plants on its way (iv) clean source of energy (v) Environment friendly because of low carbon emission.
13	**In recent years, use of which fuel is gaining popularity for transport vehicles? Why?** Ans. In recent years, use of Compressed Natural Gas (CNG) for transport vehicles is gaining popularity. It is replacing liquid fuels like petrol and diesel. The use of CNG is encouraged to control pollution, protect the environment and the conservation of petroleum which is exhausting rapidly.
14	**Differentiate between conventional sources of energy and Non-conventional sources of energy?**

Conventional sources of energy.	**Non-conventional sources of energy.**
1. These have been used for some time.	1. These have been recently developed.
2. These are expensive in the long run.	2. These are cheaper in the long run.
3. These are used extensively.	3. These are used locally.
4. E.g. Coal, petroleum, natural gas and hydroelectricity.	4. E.g. Solar, wind, tidal, geothermal, atomic energy and Biogas.

15	**Why do you think that solar energy has a bright future in India?** Ans:(i) India lies in the tropical zone and thus has enough scope for the production and utilization of solar energy.

	(ii) The non-conventional sources are in plenty, renewable, eco-friendly and pollution free. (iii) Becoming popular in every parts of the country and can be used for cooking, lighting, pumping, heating water and cooling.
16	**What are non-conventional sources of energy? Why do the non-conventional sources of energy have a bright future?** Ans: Non-conventional sources are: Sun, Wind, Geo thermal and Tidal. They have a bright future because; (i)They are abundantly found (ii) renewable (iii) pollution free (iv) eco-friendly (v) cheaper.
17	**How will you use and conserve energy efficiently?** Ans: To conserve energy we should: - (i) use public transport system as far as possible. (ii) Switch off electricity if not required. (iii) use power saving devices. (iv) regularly check our power equipments. (v) emphasise on greater use of nonconventional sources of energy.
18	**Why is it important to conserve Energy resources?** • Energy is a basic requirement for economic development. • Every sector of the national economy – Agriculture, Industry, Transport, Commercial and Domestic needs – needs inputs of energy. • Consumption of energy has been steadily rising all over the country. • India is presently one of the least energy efficient countries in the world**.**
	<u>IMPORTANT MAPS FROM CHAPTER-5 (MINERALS)</u> **<u>Map No: 1,</u>** INDIA - MINERALS – (Identification only) (Page: 54) **Iron ore** – Kudermukh, Bellary, Bailadila, Durg, and Mayurbhanj **<u>Map No: 2,</u>** INDIA – ENERGY RESOURCES, HVJ PIPE LINE – (Page: 59) (Identification only) **Coal mines -** Neyveli, Talcher, Bokaro and Raniganj **Oil fields**- Naharkatia, Mumbai high, Digboi, Bassien, Ankaleshwar and Kalol **<u>Map No: 3,</u>** INDIA POWERPLANTS – (Locating and labelling), (Page: 61) **Nuclear-** Kalpakkam, Tarapur, Kakrapara, and Narora. **Thermal-** Ramagundam, Singrauli, and Namrup.