

## CBSE Test Paper - 02

### Chapter - 13 Minerals and Energy resources

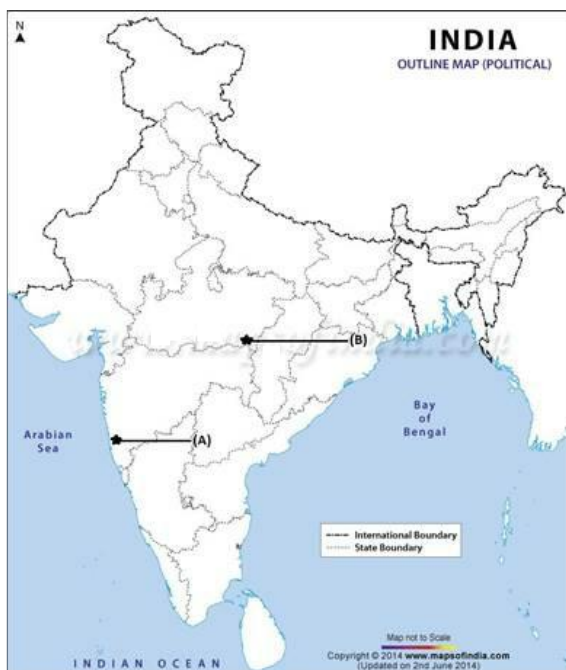
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1. Iron ore from Maharashtra and Goa belt is exported from \_\_\_\_\_. **(1)**
  - a. Cochin Port
  - b. Chennai Port
  - c. Marmagao port
  - d. Mumbai Port
2. Complete the statement with appropriate word. After all, “energy saved is energy \_\_\_\_\_”. **(1)**
  - a. produced
  - b. conserved
  - c. used
  - d. polluted
3. To meet the demand, a choice has to be made between a numbers of possible options. When this is done a mineral ‘deposit’ or ‘reserve’ turns into a \_\_\_\_\_. **(1)**
  - a. mineral
  - b. quarry
  - c. resource
  - d. mine
4. India is highly dependent on \_\_\_\_\_ for meeting its commercial energy requirements. **(1)**
  - a. water
  - b. nuclear
  - c. tidal energy
  - d. coal
5. Formation of a mineral depends upon: **(1)**
  - a. the place where the rock forms.
  - b. the physical and chemical conditions under which the material forms
  - c. the purpose for which rock is formed
  - d. who forms the rock
6. Which is the most popular coal for commercial use? **(1)**
7. Why mica is used in the electrical appliances and electronics industry? **(1)**

8. Which kind of mineral is found in Rajasthan? **(1)**
9. Which is the best variety of iron ore? **(1)**
10. Write about the formation of tidal energy. **(3)**
11. Study the given chart carefully and answer the following questions:
  - i. What does this picture shows?
  - ii. Which states of India have important wind farms?
  - iii. Name the places which are well known for effective use of wind energy. **(3)**



12. Explain with an example that aluminum was widely used by the emperors of France. **(3)**
13. i. Two features A and B are marked in the given political map of India. Identify these features with the help of the following information and write their correct names on the lines marked on the map.
  - a. Iron ore mine
  - b. Manganese mine
- ii. Locate and Label Ajmer Mica mine with appropriate symbols on the same map given for identification. **(3)**



14. Distinguish between conventional and non-conventional sources of energy. **(5)**
15. Explain any five types of non-conventional sources of energy developed in India. **(5)**

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**Answers**

1. c. Marmagao port

**Explanation:** Maharashtra-Goa belt 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 Marmagao port. It is the leading iron ore exporting port of India with an annual throughput of around 27.33 million tonnes of iron ore traffic.

2. a. produced

**Explanation:** We have to adopt a cautious approach for the judicious use of our limited energy resources. For example, as concerned citizens we can do our bit by using public transport systems instead of individual vehicles; switching off electricity when not in use, using power-saving devices and using non-conventional sources of energy. After all, “energy saved is energy produced”. We cannot keep on producing non-renewable resources like petrol, diesel and electricity etc. Nearly 97% of the world's consumed energy is coming from fossil fuels, coal, petroleum and natural gas which cannot be renewed

3. d. mine

**Explanation:** To meet the demand, a choice has to be made between a number of possible options. When this is done a mineral ‘deposit’ or ‘reserve’ turns into a mine.

4. d. coal

**Explanation:** Coal is used for power generation, to supply energy to industry as well as for domestic needs. India is highly dependent on coal for meeting its commercial energy requirements. Most significant uses of coal are in electricity generation, steel production, cement manufacturing and as a liquid fuel. Steam coal also known as thermal coal - is mainly used in power generation. Coking coal - also known as metallurgical coal .

5. b. the physical and chemical conditions under which the material forms

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**Explanation:** A particular mineral that will be formed from a certain combination of elements depends upon the physical and chemical conditions under which the material forms. This, in turn, results in a wide range of colours, hardness, crystal forms, lustre and density that a particular mineral possesses. Geologists use these properties to classify the minerals. The basic chemical materials may be the same, but as the pressure and temperature change, the actual minerals will change too.

6. Among the four forms of coal the most popular coal for commercial use is bituminous.
7. Due to its excellent dielectric strength and insulating properties, mica is used in the electrical appliances and electronics industry.
8. Non-ferrous minerals are found in Rajasthan.
9. Magnetite is the best variety of iron-ore as it contains 70% iron. It is followed by Hematite→Limonite→Siderite.
10. To generate tidal energy oceanic tides are used. Floodgates dams are built across inlets. During high tide water flows into the inlet and gets trapped when the gate is closed. After the tide falls outside the floodgate, the water retained by the floodgate flows back to the sea via pipes that carries it through a power-generating turbine.
11.
  - i. This pictures shows the wind mills, which help in generating wind energy.
  - ii. Tamil Nadu followed by Andhra Pradesh, Karnataka, Gujarat, Kerala, Maharashtra and Lakshadweep have important wind farms.
  - iii. Nagarcoil and Jaisalmer are well known for effective use of wind energy in the country.
12. After the discovery of aluminium, it was widely used by the emporors of France.
  - i. Emperor Napoleon III wore buttons and hooks on his clothes made of aluminium.
  - ii. Food was served to his more illustrious guests in aluminium utensils and the less honorable ones were served in gold and silver utensils.
  - iii. Thirty years after this incident aluminium bowls were most common with the beggars in Paris.

13.



14.

Conventional	Non- Conventional
1. Conventional sources of energy are non-renewable sources of energy.	1. Non-conventional sources of energy are renewable sources of energy.
2. These sources get depleted with its use.	2. These resources can be used again and again.
3. These are traditional sources of energy.	3. These are recently developed sources of energy.

4. These causes large scale pollution.	4. These are environment friendly resources.
5. For example : Coal, petroleum, diesel, etc.	5. For example: Solar energy, wind energy, tidal energy etc.

15. The growing consumption of energy has resulted in a pressing need to use renewable energy sources like solar energy, wind, tide, biomass and energy from waste material. These are called non-conventional energy sources. India is blessed with an abundance of sunlight, water, wind and biomass. It has the largest programmes for the development of these renewable energy resources.

- i. Solar energy: India is a tropical country. It has enormous possibilities of tapping solar energy. Photovoltaic technology converts sunlight directly into electricity. Solar energy is fast becoming popular in rural and remote areas. The largest solar plant of India is located at Madhapur, near Bhuj, where solar energy is used to sterilize milk cans.
- ii. Wind power: India now ranks as a wind super power in the world. The largest wind farm cluster is located in Tamil Nadu from Nagarcoil to Madurai.
- iii. Biogas: Shrubs, farm waste, animal and human waste are used to produce biogas for domestic purpose in rural area. Decomposition of organic matter yields gas, which has higher thermal efficiency in comparison to kerosene, dung cake and charcoal.
- iv. Tidal energy: Oceanic tides can be used to generate electricity. Floodgate dams are built across inlets. During high tide water flows into the inlet and gets trapped when the gate is closed. From that stored water electricity is generated.
- v. Geo thermal Energy: Geothermal energy refers to the heat and electricity produced by using the heat from the interior of the earth.