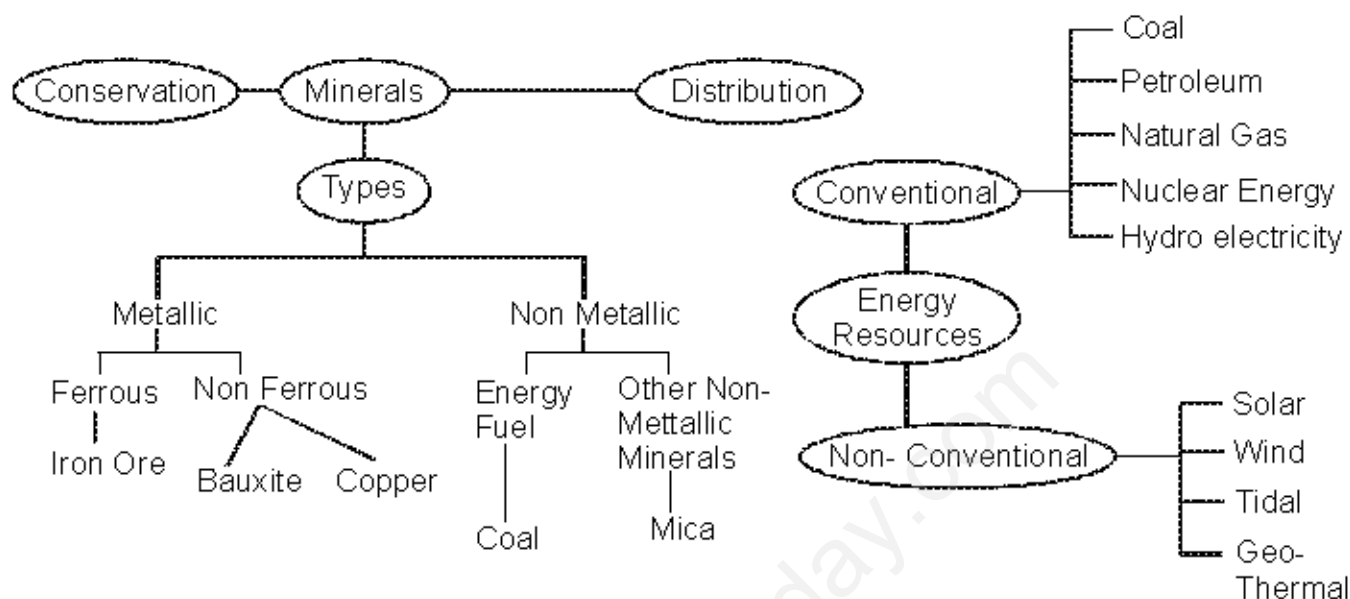


CHAPTER 7

MINERALS AND ENERGY RESOURCES



Q1. Which is the largest coal field of India? (1)

Ans Jharia.

Q2. Name two Ages or Eras of formation of coal. (1)

Ans Gondwana and Tertiary.

Q3. Which is the largest oil refinery in India? (1)

Ans Jamnagar (Gujarat).

Q4. Where was the first atomic station set up in India? (1)

Ans In 1969 at Tarapur near Mumbai.

Q5. Name two sources of non conventional energy. (1)

Ans Bio mass Solar energy, wind, tidal, Geo-Thermal (any two).

Q6. Which state is the largest producer of coal in India? (1)

Ans Jharkhand.

Q7. Name one iron ore mine located in Karnataka. (1)

Ans Kudremukh.

Q8. Which is the hardest mineral? (1)

Ans Diamond.

Q9. Which is the largest oil producing centre of India? (1)

Ans Mumbai High

Q10. Which mineral is obtained from Monazite sand? (1)

Ans Thorium.

Q11. What is Conservation of minerals? Why is conservation of minerals necessary? Explain in two points. (3)

Ans Use of minerals in a scientific manner to avoid their wastage, is called Conservation of minerals.

Conservation of minerals is necessary :

- (i) for the regular advancement of the civilization and
- (ii) minerals are exhaustible resources. They are needed for our future generation.

Methods to Conserve minerals -

- (i) Use alternatives in place of minerals like plastic doors in place of iron & steel.
- (ii) Recycling.

Q12. Describe any three Commercial producing oil fields in India. (3)

Ans : 1. N.E. Region

2. Gujarat

3. Mumbai high.

Q13. Distinguish between metallic and non metallic minerals : (3)

Metallic minerals

- 1. Those mineral from which we get metals.
- 2. Can be drawn into wires and sheets after melting.
- 3. Example are - Iron ore, Copper and tin etc.

Non Metallic minerals

- 1. Those minerals from which we do not get metals.
- 2. Can not be drawn into wires and sheets.
- 3. Example are coal and marble.

Q15. Distinguish between Conventional and non Conventional resources of energy. (3)

Ans: Conventional Sources of energy

1. These are exhaustible resources
2. They pollute the environment
3. Example are - coal and petroleum.

Non Conventional Sources of energy

1. These are inexhaustible resources.
2. They do not pollute the environment
3. Example are - Solar energy and wind energy.

Q16. What are the three characteristics of minerals which make us to conserve them?

OR

Why conservation of minerals is necessary? Give three reasons.

- Ans. (i) Minerals are unevenly distributed over space.
- (ii) There is inverse relationship in quality and quantity of minerals i.e. good quality minerals are less in quantity as compared to low quality minerals.
- (iii) All minerals are exhaustible over time. These take long to develop geologically and they cannot be replenished immediately at the time of need.

Q17. Write a detailed note on the Petroleum resources of India. (5)

Ans Petroleum is an essential source of energy for all internal combustion engines in automobiles, railways and aircraft. Its numerous by-products are processed in petro-chemical industries such as fertiliser, synthetic rubber, synthetic fibre, medicines, vaseline, lubricants, wax, soap and cosmetics.

Crude petroleum occurs in sedimentary rocks of the tertiary period. Oil exploration, and production was systematically taken up after the oil and Natural Gas Commission was set up in 1956. Till then, the Digboi in Assam was the only oil producing region.

Distribution -

Assam - Digboi, Naharkatiya and Moran.

Gujarat - Ankaleshwar, Kalol, Mehsana, Nawagam.

Maharashtra - Mumbai High.

Oil Refining Process -

Oil extracted from the wells is crude oil and contains many impurities. It cannot be used directly. It needs to be refined. There are two types of refineries in India :

- (1) Field based - Eg Digboi refinery
- (2) Market based - Eg Barauni refinery.

Q18. Describe the three broad belts of mineral concentration and distribution in India. (5)

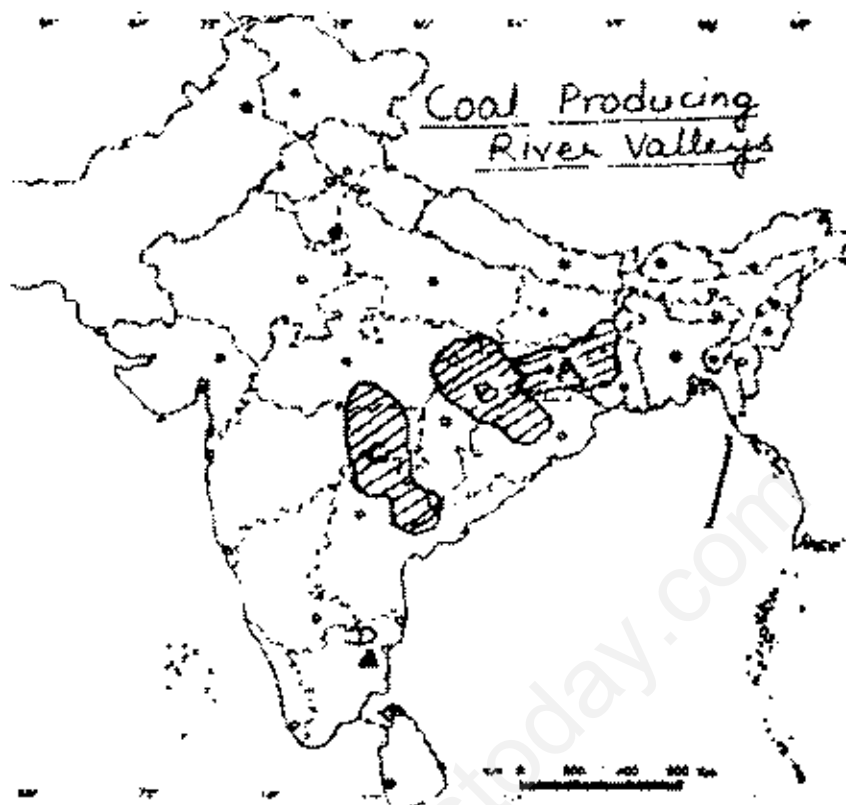
- Ans. (i) The North-Eastern Plateau Region – This belt covers Chotanagpur, Orissa Plateau, West Bengal and Parts of Chhatisgarh major Iron and Steel industry are located in this region.
- (ii) The south-Western Plateau Region – This belt extends over Karnataka, Goa and Tamil Nadu and Kerala. This belt is rich in Ferrous metals such as iron-ore and manganese. Bauxite and limestone are also found. Coal deposits are low. Kerala has deposits of monazite and Thorium.
- (iii) The North-Western Region – This belt extends along Aravali in Rajasthan and part of Gujarat. Copper and Zinc are major minerals.
- (iv) Other regions – (a) The Himalayan belt is another mineral belt where copper, lead, zinc, cobalt and tungsten are known to occur. Assam valley has mineral oil deposits
- (b) Mumbai High has rich oil resources in off shore areas.

Q19. What are the Characteristics of Solar Energy? (5)

Ans. Solar Energy :

- (i) Sun rays tapped in Photovoltaic cells can be converted into energy, known as solar energy.
- (ii) The two effective processes to tap solar energy are photovoltaics and Solar thermal technology
- (iii) Solar thermal technology has some relative advantages over all other non-renewable energy sources.
 - (a) It is cost competitive, environment friendly and easy to construct.
 - (b) solar energy is 7 Per cent more effective than coal or oil based plants and 10% more effective than nuclear plants.
 - (c) It is generally used more in appliances like heaters, crop dryers, cookers etc.
- (iv) The western part of India has greater potential for the development of Solar energy in Gujarat and Rajasthan.

Q20. Study the following map of India and answer the questions :



- (1) Name the coal producing river valleys marked as A, B, & C
- (2) Which is the most important coal field of the valley marked as A.
- (3) Name the lignite coal field of Tamilnadu marked as D. Write two characteristics of this coal.

Ans 1 A Damodar Valley
 B Mahanadi and Son valley
 C Godavari Valley

2 Jharia coal field

3 Neyveli coal field.

21. Why is the petroleum referred to as "liquid gold"?

- Ans** Crude petroleum consists of hydrocarbons liquid & gaseous state varing in chemical composition, colour and specific gravity.
- Essential sources of energy for all combustion engines in automobiles railways and aircrafts because of its scarcity and diversified use.

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