

Mineral Resources Chemistry Questions with Solutions

Q1. Which of the following state is the leading producer of Bauxite ore?

- (a) Orissa
- (b) Madhya Pradesh
- (c) West Bengal
- (d) None of the above

Answer: (a) Orissa is the leading producer of Bauxite ore.

Q2. Which of the following plateau is richest in minerals?

- (a) Chota Nagpur plateau
- (b) Deccan plateau
- (c) Mysore plateau
- (d) None of the above

Answer: (a) Chota Nagpur plateau is richest in minerals.

Q3. Majhgawan mines are located in which of the following state?

- (a) Uttar Pradesh
- (b) Madhya Pradesh
- (c) Andhra Pradesh
- (d) None of the above

Answer: (b) Majhgawan mines are located in Madhya Pradesh.

Q4. Which of the following state is the leading producer of gold?

- (a) Karnataka
- (b) Madhya Pradesh
- (c) West Bengal
- (d) None of the above

Answer: (a) Karnataka is the leading producer of gold.

Q5. Which of the following coal is the most popular coal in commercial use?

- (a) Lignite coal
- (b) Anthracite coal
- (c) Bituminous coal
- (d) None of the above

Answer: (c) Bituminous coal is the most popular coal in commercial use.

Q6. What is a mineral?

Answer: Minerals are naturally occurring homogenous substances with a specific internal structure.

Q7. What is a conventional source of energy?

Answer: A conventional source of energy is a non-renewable source of energy which can't be renewed once exhausted. They are present in a limited quantity in the environment. Coal, oil, natural gas and fossil fuels are examples of some conventional sources of energy.

Q8. Explain different classes of iron ores.

Answer: There are four classes of iron ores.

1. Magnetite: Magnetite is the best quality iron ore. It has the highest amount of iron up to 70 per cent with outstanding magnetic properties. It is also used in the electrical industries.
2. Haematite: Haematite is the class of iron ore. It has about 50 to 60 per cent of iron and is one of the significant classes of iron used in industries.
3. Limonite: Limonite is the class of iron ore. It has about 40 to 60 per cent of iron.
4. Siderite: Siderite is the class of iron ore. It has about 40 to 50 per cent of iron.

Q9. Why is mining hazardous?

Answer: Mining is the process of extracting valuable minerals from the earth by digging. There are a lot of harmful effects of mining on the environment and human health. A few of them are mentioned below.

1. The toxic fumes and dust particles released during the mining can cause dangerous diseases like asthma and cardiovascular mortality.
2. It can pollute the air and drinking water.
3. It encourages deforestation, thereby leading to soil erosion and biodiversity loss.

Q10. Name the mineral used for manufacturing

- (a) Aluminium
- (b) Cement
- (c) Synthetics

Answer:

- (a) The mineral used for manufacturing aluminium is bauxite.
- (b) The mineral used for manufacturing cement is limestone.
- (c) The mineral used for manufacturing synthetics is oil or coal.

Q11. What is a mineral? Give any three facets of minerals?

Answer: Minerals are naturally occurring homogenous substances with a specific internal structure. The three facets of minerals are mentioned below.

1. Quality of minerals is inversely related to the number of minerals.
2. Minerals are unevenly distributed over space.
3. Minerals are non-renewable sources.

Q12. What is a placer deposit?

Answer: A placer deposit is the minerals deposit occurring in the sands of valley floors and the base of the hills as alluvial deposits.

Q13. Match the following.

Column A	Column B
Highest petroleum-producing area	Charcoal
Metallic mineral	Coal
Non – Metallic Mineral	Mica
Conventional sources of energy	Manganese
Non-commercial sources of energy	Mumbai High

Answer:

Column A	Column B
Highest petroleum-producing area	Mumbai High
Metallic mineral	Manganese
Non – Metallic Mineral	Mica
Conventional sources of energy	Coal
Non-commercial sources of energy	Charcoal

Q14. How will you differentiate between metallic and non-metallic minerals?

Answer: Metallic and non-metallic minerals can be differentiated in the following ways.

S. No.	Metallic Minerals	Non-Metallic Minerals
1.	A metallic Mineral is a mineral in which metal is present in its raw form.	A non-metallic mineral does not contain any metal.
2.	Metallic minerals are usually found in igneous and metamorphic rocks.	Non- metallic are found embedded in a young mountain fold and sedimentary rocks.
3.	Metallic minerals generally have	Non-metallic minerals do not have

	lustre.	lustre.
4.	Metallic minerals have high malleability and ductility.	Non-metallic minerals are non-malleable and non-ductile. It can break down easily.
5.	Metallic minerals are good conductors of electricity and heat.	Non-metallic minerals are insulators of electricity and heat.
6.	A new product is formed by melting a metallic mineral.	No new product is formed by melting a non-metallic mineral.

Q15. How will you differentiate between hydroelectricity and thermal electricity?

Answer: Hydroelectricity and thermal electricity differ in the following ways.

S. No.	Hydroelectricity	Thermal electricity
1.	It is produced from falling water from turbines.	It is produced by burning coal, petroleum and natural gas.
2.	Its source is perennial and thus is inexhaustible.	It is non-exhaustible.
3.	It causes no pollution.	It causes pollution in the form of smoke and fumes.

Practise Questions on Mineral Resources

Q1. Minerals play an important role in human life. Justify your answer.

Answer: Minerals are naturally occurring homogenous substances with a specific internal structure. It plays an indispensable part in human life. Almost all things we use are made of minerals. A few uses of minerals are mentioned below.

1. Humans use minerals for their livelihood, decoration, festivities, religious and ceremonial rites.
2. Buildings, ships, railway lines, cars, buses, aeroplanes, various implements etc., are manufactured from minerals and run on power resources derived from the earth.
3. Our food too contains minerals. Life processes cannot occur without minerals.
4. They are a significant part of total food intake.

5. It is only 0.3 per cent of the total intake of nutrients, but they are so potent and essential that without them, we would not be able to utilise the other 99.7 per cent of the foodstuffs.
6. In toothpaste, fluoride, which reduces cavities, comes from the mineral fluorite.

Q2. Which are the immaculate requirements under which minerals can be mined?

Answer:

The ideal conditions for mining minerals are mentioned below.

1. The mineral content of the ore must be in sufficient concentration to make its extraction commercially viable.
2. The type of formation determines the relative ease with which mineral ores may be mined.
3. Cost of extraction should be reasonable.

Q3. Why should we conserve minerals?

Answer: Minerals are naturally occurring homogenous substances with a specific internal structure. It plays an indispensable part in human life. Almost all things we use are made of minerals.

Q4. How can we conserve minerals?

Answer: We can conserve minerals in the following ways.

1. Minerals have to be used in a planned and sustainable manner.
2. We should evolve improved technologies to use low-grade ores at low costs.
3. Recycling metals, using scrap metals and other substitutes, would help conserve minerals.
4. Using better mining methods will also help to reduce waste.

Q5. Energy plays a vital role in human life. Justify your answer.

Answer: Energy plays an essential role in human life. The following points can explain the statement.

1. Energy is needed for all activities like providing heat and light, driving machinery and cooking.
2. Every sector of the national economy, like agriculture, industry, transport, communication, etc., requires energy.
3. The developmental plans require energy to remain operational. With time, energy consumption has been on a steady rise, making it a requirement for our daily life.