

QUESTION 01

In mineralogy, what term describes the tendency of certain minerals to break along smooth, parallel planes?

- A Cleavage x
- B Fracture
- C Fissure
- D Hardness

QUESTION 02

Which mineral, commonly found in igneous rocks, is composed of quartz, feldspar, and mica and is often used in countertops?

- A Gneiss
- B Schist
- C Granite x
- D Basalt

QUESTION 03

What is the term for the process of using microbes to extract metals from ores, reducing the environmental impact of traditional extraction methods?

- A Pyrometallurgy
- B Bioleaching x
- C Electrorefining
- D Hydrometallurgy

QUESTION 04

Which mineral, known for its vibrant blue color and historical significance, is a copper aluminum phosphate often used in jewelry?

- A Turquoise x
- B Topaz
- C Aquamarine
- D Lapis Lazuli

QUESTION 05

What is the primary mineral used in the production of cement, contributing to the construction of buildings and infrastructure?

- A Quartz
- B Gypsum
- C Feldspar
- D Calcite x

QUESTION 06

Which mineral, used in the manufacturing of ceramics and glass, is a type of crystalline alumina with traces of iron?

- A Hematite
- B Corundum x
- C Magnetite
- D Bauxite

QUESTION 07

In recycling, what is the primary method for recovering precious metals from electronic waste, using chemical solutions to dissolve metals?

- A Pyrolysis
- B Hydrometallurgy x
- C Shredding
- D Electroplating

QUESTION 08

Which mineral, commonly associated with volcanic activity, is a primary component in the production of cement and concrete?

- A Pumice
- B Obsidian
- C Andesite x
- D Rhyolite

QUESTION 09

What is the name of the process that involves exposing minerals to high temperatures in the absence of air to convert them into oxides or other compounds?

- A Roasting
- B Calcination x
- C Smelting
- D Chilling

QUESTION 10

What is the process of extracting metals from their ores called?

- A Photosynthesis
- B Respiration
- C Mining ^x
- D Fracking

QUESTION 11

Why is recycling important for conserving mineral resources?

- A It prevents soil erosion
- B It reduces greenhouse gas emissions
- C It conserves energy ^x
- D It promotes deforestation

QUESTION 12

Which metal is commonly recycled from electronic waste, such as old smartphones and computers?

- A Gold
- B Iron
- C Silver
- D Copper ^x

QUESTION 13

How does the extraction of minerals impact the environment?

- A Positively
- B Negatively (eg. deforestation, ...) ^x
- C Only affects human health
- D No impact

QUESTION 14

Which of the following materials can be recycled to recover aluminum?

- A Bottles
- B Electronic waste
- C Cans ^x
- D Styrofoam

QUESTION 15

Which metal is commonly used in rechargeable batteries and can be found in your smartphone?

- A Lithium ^x
- B Copper
- C Aluminum
- D Plutonium

QUESTION 16

What is the term for the process of extracting metals from ores using bacteria?

- A Reduction
- B Deduction
- C Bactreaching
- D Leaching ^x

QUESTION 17

Which metal is essential for the production of stainless steel?

- A Manganese
- B Nickel
- C Chromium ^x
- D Titanium

QUESTION 18

Which electronic component contains small amounts of precious metals and should be recycled to recover these valuable resources?

- A Capacitors
- B Integrated circuits ^x
- C Resistors
- D Inductors

QUESTION 19

Which mineral, used in the production of ceramics and as a refractory material, is an aluminum silicate often mined in China?

- A Kaolinite ^x
- B Talc
- C Zircon
- D Wollastonite

QUESTION 20

In geology, what is the term for a naturally occurring concentration of one or more minerals that can be extracted economically?

- A Ore deposit ^x
- B Mineral vein
- C Geodude
- D Nodule

QUESTION 21

Which mineral, commonly used in the production of refractory bricks, is a type of crystalline alumina and often derived from bauxite?

- A Andalusite
- B Mullite ^x
- C Periclase
- D Spinel

QUESTION 22

What is the process of using strong acids to dissolve specific minerals, allowing the extraction of valuable elements?

- A Leaching ^x
- B Milling
- C Agglomeration
- D Cyanidation

QUESTION 23

Which mineral, a common component in metamorphic rocks, is a magnesium iron silicate often used as a gemstone?

- A Garnet
- B Peridot
- C Spinel
- D Olivine ^x

QUESTION 24

What is the term for the process of mechanically agitating a mixture of minerals and water to separate them based on their different physical properties?

- A Magnetic separation
- B Froth flotation ^x
- C Gravity separation
- D Electrostatic separation

QUESTION 25

In metallurgy, what is the term for the process of adding a reducing agent to a metal oxide to obtain the pure metal?

- A Reduction ^x
- B Oxidation
- C Calcination
- D Smelting

QUESTION 26

Which mineral, composed of calcium sulfate dihydrate, is commonly used in construction for drywall and plaster?

- A Calcite
- B Gypsum ^x
- C Anhydrite
- D Halite

QUESTION 27

What is the term for the process of mechanically breaking down rocks into smaller particles without changing their chemical composition?

- A Erosion
- B Sintering
- C Weathering ^x
- D Leaching

QUESTION 28

Which mineral, known for its green color, is a copper carbonate hydroxide often used in jewelry and ornamental carvings?

- A Malachite x
- B Azurite
- C Chrysocolla
- D Turquoise

QUESTION 29

In mining, what is the term for the process of removing overlying rock and soil to expose an ore deposit?

- A Excavation
- B Drilling
- C Tunnelling
- D Stripping x

QUESTION 30

Which mineral, composed of calcium carbonate, is the main component of marble and often used in sculpture and architecture?

- A Dolomite
- B Calcite x
- C Aragonite
- D Limestone

QUESTION 31

What is the term for the process of extracting metals from their ores using electricity in a molten salt electrolyte?

- A Pyrometallurgy
- B Electrolysis x
- C Electrometallurgy
- D Hydrometallurgy

QUESTION 32

Which mineral, often used as a gemstone, is a variety of the mineral corundum and can exhibit asterism (the star effect)?

- A Ruby
- B Emerald
- C Sapphire x
- D Diamond

QUESTION 33

In metallurgy, what is the term for the process of heating a metal ore in the presence of air to remove impurities?

- A Calcination
- B Smelting
- C Roasting x
- D Flaming

QUESTION 34

Which mineral, commonly used as a flux in the smelting of iron ore, is a calcium magnesium carbonate?

- A Aragonite
- B Calcite
- C Magnesite
- D Dolomite x

QUESTION 35

Which rare earth element, essential in the manufacturing of phosphors for energy-efficient lighting, is often associated with the mineral monazite?

- A Europium x
- B Neodymium
- C Cerium
- D Yttrium

QUESTION 36

Which mineral, used as a pigment in paints and ceramics, is a natural form of iron(III)oxide and often referred to as "ochre" when yellow and "sienna" when brown?

- A Limonite
- B Hematite x
- C Magnetite
- D Goethite