

Test Bank for Chemistry in Context 1st Society

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Chapter 01 Test Bank - Portable Electronics The Periodic Table in the Palm of Your Hand

CORRECT ANSWERS ARE LOCATED IN THE 2ND HALF OF THIS DOC.

- 1) The quantity 0.0000064 g expressed in scientific notation.
 - A) 6.4×10^6 g
 - B) 6.4×10^{-6} g
 - C) 6.4×10^7 g
 - D) 6.4×10^{-7} g

- 2) The quantity 8.7×10^5 g expressed in standard decimal notation.
 - A) 0.000087 g
 - B) 870.000 g
 - C) 0.0000087 g
 - D) 870,000 g

- 3) A substance that can be broken down into two or more simpler substances by chemical methods is called a(n)
 - A) compound.
 - B) mixture.
 - C) element.
 - D) isotope.

- 4) On a periodic table, the columns of elements with similar properties are
 - A) periods.
 - B) groups.
 - C) rows.
 - D) metals.

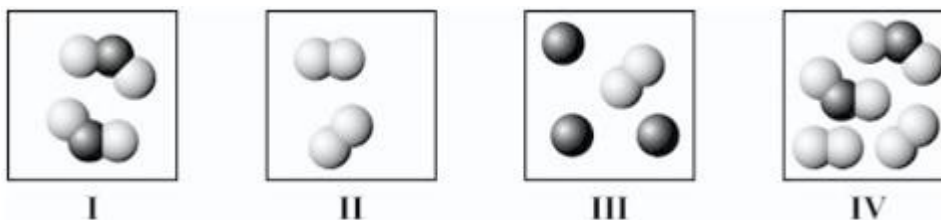
- 5) The most numerous of the elements are the
 - A) metals.
 - B) nonmetals.
 - C) metalloids.
 - D) noble gases.

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- 6) Which is not a mixture?
- A) a jar filled with rocks and sand
 - B) seawater
 - C) a glass of Kool-Aid
 - D) sodium chloride

- 7) Which is not a pure substance?
- A) helium
 - B) copper wire
 - C) air
 - D) sucrose

- 8) Which squares contain mixtures?



- A) II and III only
- B) III and IV only
- C) I, III, and IV only
- D) I and IV only

9) Which square(s) contain(s) only an element?

- 10) Which symbols represent only elements that are metals?

[illegible]

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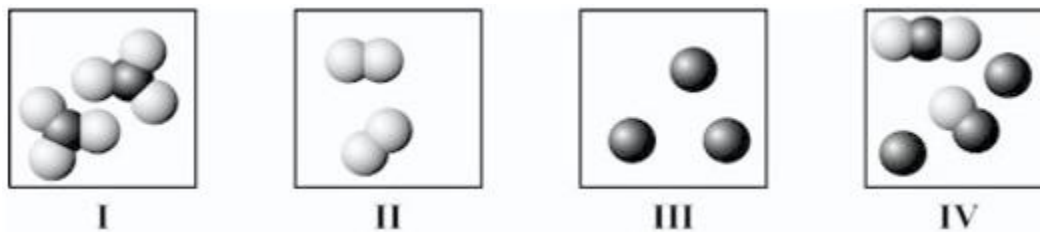
11) Which symbol(s) represent(s) elements in the noble gas family?

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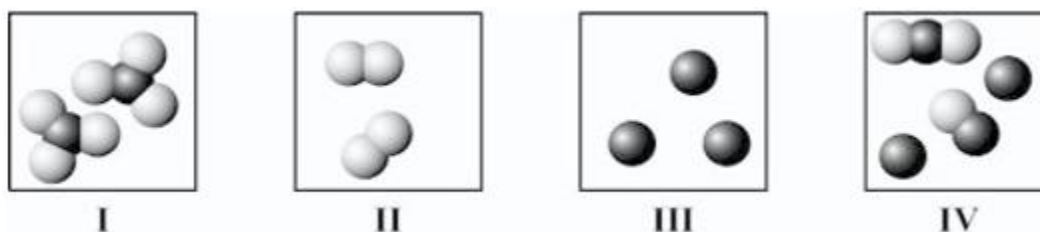
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15) Which diagram(s) best represent(s) only diatomic molecules?



- A) I only
- B) II only
- C) I and II only
- D) II and IV only

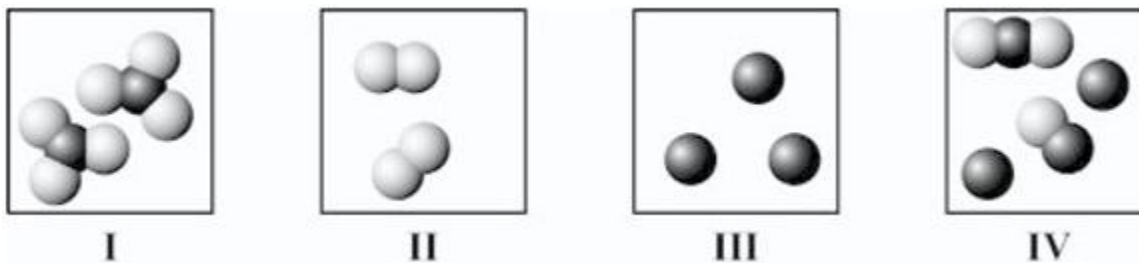
16) Which diagram(s) best represent(s) only molecules?



- A) I only
- B) II only
- C) III only
- D) I and II only
- E) IV only

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17) Which diagram(s) best represent(s) only individual atoms?



- A) I only
- B) II only
- C) III only
- D) IV only
- E) II and III only

18) Which of the following is the chemical symbol for silver?

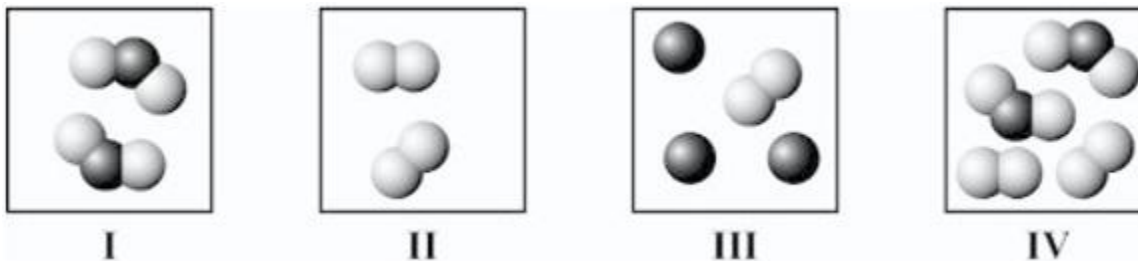
- A) Au
- B) Pb
- C) Ag
- D) Fe

19) Which of the following is a pure substance?

- A) lemonade
- B) concrete
- C) gasoline
- D) silver wire

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20) Which square(s) contain(s) only one or more compounds?



- A) I only
- B) II only
- C) I and IV only
- D) II and III only

21) In the periodic table, which elements typically have similar properties?

- A) those in the same rows
- B) those related diagonally
- C) those in the same columns
- D) those on opposite sides

22) The nucleus of an atom contains

- A) electrons and protons only.
- B) protons only.
- C) electrons, protons, and neutrons.
- D) protons and neutrons only.

23) What distinguishes the atoms of one element from another?

- A) the number of neutrons
- B) the number of protons plus neutrons
- C) the number of protons
- D) the number of neutrons plus electrons

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- 24) The atomic number is the
- A) same as the mass number of an atom.
 - B) number of protons in a nucleus.
 - C) number of protons and neutrons in a nucleus.
 - D) number of neutrons in a nucleus.
- 25) The majority of new smartphones being released have displays that are at least 5 inches in size. What is this size in centimeters? (There are 2.54 cm in one inch.)
- A) 1.97 cm
 - B) 6.10 cm
 - C) 12.7 cm
 - D) 60.0 cm
- 26) Which one of the following is a subatomic particle located in the center of the atom and has a positive charge?
- A) protons
 - B) neutrons
 - C) electrons
 - D) photons
- 27) Which one of these materials is most likely to conduct heat?
- A) a titanium rod
 - B) a sample of chlorine gas
 - C) a silicon wafer
 - D) a chunk of phosphorus
- 28) What type of material is defined as having a well-ordered atomic structure?
- A) amorphous
 - B) crystalline
 - C) transparent
 - D) opaque

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- 29) What are the three pillars of sustainability?
- A) reduce, reuse, recycle
 - B) equitability, justice, quality of life
 - C) diversity, efficiency, toxicity
 - D) environmental, social, economic
- 30) Which country is the world's leading producer of rare earth elements?
- A) USA
 - B) China
 - C) South Africa
 - D) Brazil
- 31) A recent set of advertisements has a picture of an aluminum can with an aluminum-frame bicycle, along with a hypothetical quote from the can that reads: "I want to be a bike. Recycle me." The analysis of the life cycle of an item starting with its raw materials and ending with the used item becoming the raw material for new products is called
- A) cradle-to-grave.
 - B) reusability.
 - C) cradle-to-cradle.
 - D) cost-benefit analysis.
- 32) Which one of the following is an example of a homogeneous mixture?
- A) a chocolate chip cookie
 - B) a glass of pulp-free lemonade
 - C) a carbonated beverage
 - D) a bowl of cereal in milk
- 33) What is the density of a block of material that is 12 cm × 6 cm × 2 cm and has a mass of 356 g?
- A) 1.00 g/cm³
 - B) 2.47 g/cm³
 - C) 3.56 g/cm³
 - D) 4.95 g/cm³

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- 34) How many cm are in 0.129 m?
- A) 1.29 cm
 - B) 12.9 cm
 - C) 129 cm
 - D) 1290 cm
- 35) What term is defined as the flow of electrons from one location to another?
- A) resistance
 - B) transparency
 - C) density
 - D) electricity
- 36) A sample of silicon rejected for use in an electronic circuit has an impurity of boron at a level of 3 parts per billion. What is the fraction of boron atoms in the silicon sample as written in scientific notation?
- A) 3×10^{-9}
 - B) 3×10^9
 - C) 3×10^{-12}
 - D) 3×10^{-6}
- 37) What is the term used to describe a material that allows light to mostly pass through it?
- A) reflective
 - B) porous
 - C) transparent
 - D) absorbtive
- 38) How many protons are in an atom of carbon?
- A) 2
 - B) 4
 - C) 6
 - D) 12

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- 39) Which of the following states of matter has a definite shape?
- A) solid
 - B) liquid
 - C) gas
 - D) plasma
- 40) Matter is anything that occupies space and has a _____.
- A) density
 - B) volume
 - C) mass
 - D) color
- 41) In which of the following phases are the particles farthest from each other?
- A) solid
 - B) liquid
 - C) gas
 - D) need more information
- 42) Different elemental forms of carbon such as diamond and graphite are referred to as _____.
- A) isotopes
 - B) allotropes
 - C) isomers
 - D) isotropes
- 43) What multistep process is used to separate pure metals from ore?
- A) mining
 - B) leaching
 - C) metallurgy
 - D) grinding

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44) Which of the following is a physical change?

- A) melting of ice
- B) burning of gasoline
- C) baking a cake
- D) fermenting of grapes

45) Which of the following is a chemical change?

- A) boiling water
- B) melting wax
- C) cracking glass
- D) souring milk

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Answer Key

Test name: Chapter 01 Test Bank - Portable Electronics The Periodic Table in the Palm of Yo

- 1) B
- 2) D
- 3) A
- 4) B
- 5) A
- 6) D
- 7) C
- 8) B
- 9) B
- 10) A
- 11) C
- 12) B
- 13) C
- 14) C
- 15) B
- 16) D
- 17) C
- 18) C
- 19) D
- 20) A
- 21) C
- 22) D
- 23) C
- 24) B
- 25) C
- 26) A
- 27) A
- 28) B
- 29) D
- 30) B
- 31) C
- 32) B
- 33) B
- 34) B
- 35) D

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- 36) A
- 37) C
- 38) C
- 39) A
- 40) C
- 41) C
- 42) B
- 43) C
- 44) A
- 45) D