TEST BANK

CHEMISTRY:

The Central Science

12/EDITION

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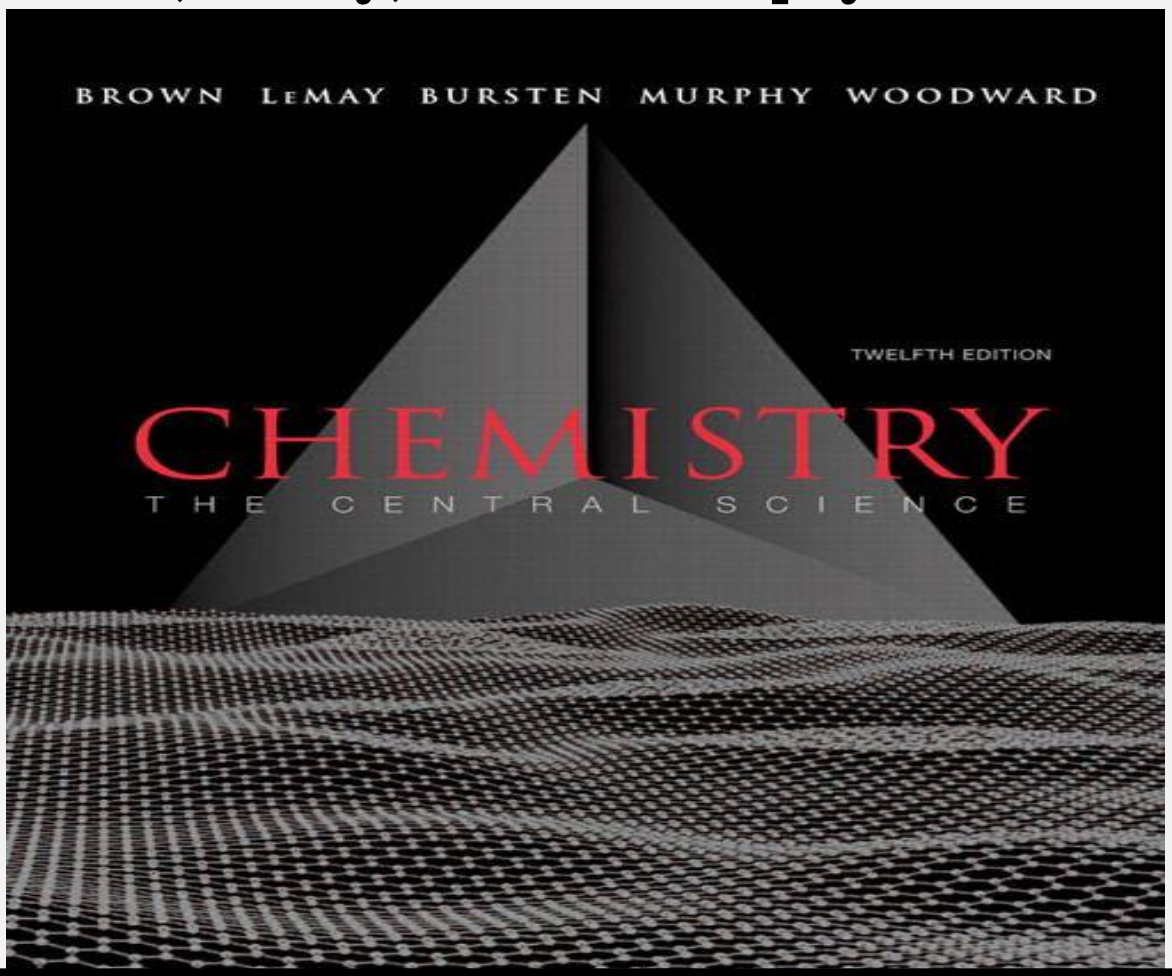

TEST BANK

Chemistry: The Central Science, 12e **(Brown et al.) Test Bank**

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1.1 Multiple-Choice Questions

1) In the following list, only_____is not an example of matter.
A) planets
B) light
C) dust
D) elemental phosphorus
E) table salt
Answer: B
Diff: 2 Page Ref: Sec. 1.1

2) What is the physical state in which matter has no specific shape but does have a specific volume?
A) gas
B) solid
C) liquid
D) salts
E) ice
Answer: C
Diff: 1 Page Ref: Sec. 1.2

3) The law of constant composition applies to_____.
A) solutions
B) heterogeneous mixtures
C) compounds
D) homogeneous mixtures
E) solids
Answer: C
Diff: 1 Page Ref: Sec. 1.2

4) A combination of sand, salt, and water is an example of a_____.
A) homogeneous mixture
B) heterogeneous mixture
C) compound
D) pure substance
E) solid
Answer: B
Diff: 1 Page Ref: Sec. 1.2

5) A small amount of salt dissolved in water is an example of a_____.
A) homogeneous mixture
B) heterogeneous mixture
C) compound
D) pure substance
E) solid
Answer: A
Diff: 1 Page Ref: Sec. 1.2

6) Which one of the following has the element name and symbol correctly matched?
A) P, potassium
B) C, copper
C) Mg, manganese
D) Ag, silver
E) Sn, silicon
Answer: D
Diff: 1 Page Ref: Sec. 1.2

7) Which one of the following has the element name and symbol correctly matched?
A) S, sodium
B) Tn, tin
C) Fe, iron
D) N, neon
E) B, bromine
Answer: C
Diff: 1 Page Ref: Sec. 1.2

8) Which one of the following elements has a symbol that is not derived from its foreign name?
A) tin
B) aluminum
C) mercury
D) copper
E) lead
Answer: B
Diff: 2 Page Ref: Sec. 1.2

9) Which one of the following is a pure substance?
A) concrete
B) wood
C) salt water
D) elemental copper
E) milk
Answer: D
Diff: 1 Page Ref: Sec. 1.2

10) Which one of the following is often easily separated into its components by simple techniques such as filtering or decanting?
A) heterogeneous mixture
B) compounds
C) homogeneous mixture
D) elements
E) solutions
Answer: A
Diff: 3 Page Ref: Sec. 1.2

11) Which states of matter are significantly compressible?
A) gases only
B) liquids only
C) solids only
D) liquids and gases
E) solids and liquids
Answer: A
Diff: 1 Page Ref: Sec. 1.2

12) For which of the following can the composition vary?
A) pure substance
B) element
C) both homogeneous and heterogeneous mixtures
D) homogeneous mixture
E) heterogeneous mixture
Answer: C
Diff: 2 Page Ref: Sec. 1.2

13) If matter is uniform throughout and cannot be separated into other substances by physical means, it is _____.
A) a compound
B) either an element or a compound
C) a homogeneous mixture
D) a heterogeneous mixture
E) an element
Answer: B
Diff: 2 Page Ref: Sec. 1.2

14) An element cannot _____.
A) be part of a heterogeneous mixture
B) be part of a homogeneous mixture
C) be separated into other substances by chemical means
D) interact with other elements to form compounds
E) be a pure substance
Answer: C
Diff: 2 Page Ref: Sec. 1.2

15) Homogeneous mixtures are also known as_____.
A) solids
B) compounds
C) elements
D) substances
E) solutions
Answer: E
Diff: 1 Page Ref: Sec. 1.2

16) The law of constant composition says_____.
A) that the composition of a compound is always the same
B) that all substances have the same composition
C) that the composition of an element is always the same
D) that the composition of a homogeneous mixture is always the same
E) that the composition of a heterogeneous mixture is always the same
Answer: A
Diff: 1 Page Ref: Sec. 1.2

17) Which of the following is an illustration of the law of constant composition?
A) Water boils at 100°C at 1 atm pressure.
B) Water is 11% hydrogen and 89% oxygen by mass.
C) Water can be separated into other substances by a chemical process.
D) Water and salt have different boiling points.
E) Water is a compound.
Answer: B
Diff: 3 Page Ref: Sec. 1.2

18) In the following list, only_____is not an example of a chemical reaction.
A) dissolution of a penny in nitric acid
B) the condensation of water vapor
C) a burning candle
D) the formation of polyethylene from ethylene
E) the rusting of iron
Answer: B
Diff: 2 Page Ref: Sec. 1.3

19) Gases and liquids share the property of_____.
A) compressibility
B) definite volume
C) incompressibility
D) indefinite shape
E) definite shape
Answer: D
Diff: 1 Page Ref: Sec. 1.3

20) Of the following, only_____is a chemical reaction.
A) melting of lead
B) dissolving sugar in water
C) tarnishing of silver
D) crushing of stone
E) dropping a penny into a glass of water
Answer: C
Diff: 1 Page Ref: Sec. 1.3

21) Which one of the following is not an intensive property?
A) density
B) temperature
C) melting point
D) mass
E) boiling point
Answer: D
Diff: 2 Page Ref: Sec. 1.3

22) Which one of the following is an intensive property?
A) mass
B) temperature
C) heat content
D) volume
E) amount
Answer: B
Diff: 2 Page Ref: Sec. 1.3

23) Of the following, only_____is an extensive property.
A) density
B) mass
C) boiling point
D) freezing point
E) temperature
Answer: B
Diff: 2 Page Ref: Sec. 1.3

24) Which of the following are chemical processes?
1. rusting of a nail
2. freezing of water
3. decomposition of water into hydrogen and oxygen gases
4. compression of oxygen gas
A) 2, 3, 4
B) 1, 3, 4
C) 1, 3
D) 1, 2
E) 1, 4
Answer: C
Diff: 3 Page Ref: Sec. 1.3

25) In the following list, only_____is not an example of a chemical reaction.