Introductory Chemistry 2nd edition Revell Test Bank

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Name:_____ Class:_____ Date:_____

Chapter 1

1. Chemistry that is essential to the understanding of the human body is found within the field of _____.
   a. physics
   b. biology/medicine
   c. materials
   d. geology

ANSWER: b

2. Chemistry that is essential to the understanding of energy and motion is found within the field of _____.
   a. physics
   b. biology/medicine
   c. materials
   d. geology

ANSWER: a

3. Chemistry that is essential to the understanding of plastics and steel is found within the field of _____.
   a. physics
   b. biology/medicine
   c. materials
   d. geology

ANSWER: c

4. _____ is often referred to as the "central science" because it connects with every other field of science.
   a. Chemistry
   b. Biology/medicine
   c. Physics
   d. Geology

ANSWER: a

5. Which task is NOT impacted by chemistry?
   a. painting a picture on a canvas
   b. playing a violin
   c. fertilizing a field
   d. All of these tasks are impacted by chemistry.
   e. None of these tasks is impacted by chemistry.

ANSWER: d

6. Which task is NOT impacted by chemistry?
   a. improving water quality
   b. harvesting solar energy
   c. synthesizing new medicines
   d. All of these tasks are impacted by chemistry.

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e. None of these tasks is impacted by chemistry.

ANSWER: d

7. Chemistry that is essential to the development of pharmaceutical drugs and treatments is found within the field of _____.

a. physics
b. biology/medicine
c. environmental science
d. geology

ANSWER: b

8. Which picture BEST represents a mixture?



a. a
b. b
c. c
d. All of these pictures represent mixtures.

ANSWER: a

9. By definition, which of the following can be broken down into simpler substances?

a. gas
b. element
c. compound
d. liquid

ANSWER: c

10. By definition, which of the following CANNOT be broken down into simpler substances?

a. gas
b. element
c. compound
d. liquid

ANSWER: b

11. Which phase of matter has a definite volume but no definite shape?

a. plasma
b. solid
c. liquid

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d. gas

ANSWER: c

12. Which phase of matter has a definite volume and shape?
a. plasma
b. solid
c. liquid
d. gas

ANSWER: b

13. A chemical change always involves a change in the _____ of matter.
a. state
b. composition
c. volume
d. temperature

ANSWER: b

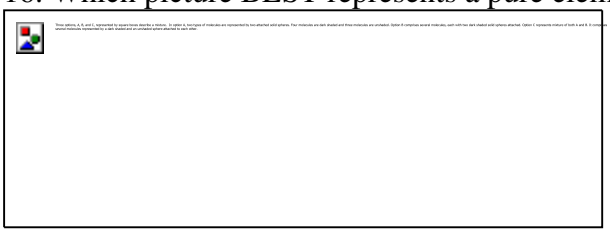
14. A mixture of iron, salt, and sand can be separated using a magnet, water, a filter, and a hot plate. This separation _____.
a. involves both chemical and physical changes
b. involves only chemical changes or processes
c. involves only physical changes or processes
d. cannot be done with the materials listed

ANSWER: c

15. Mineral deposits (known as soap scum) can be removed from your bathtub by reacting with vinegar. This changes the soap scum to a new compound that more easily washes away. The removal of soap scum by the addition of vinegar _____.
a. involves both chemical and physical changes
b. involves only chemical changes or processes
c. involves only physical changes or processes
d. cannot be done with the materials listed

ANSWER: b

16. Which picture BEST represents a pure element?



a. a

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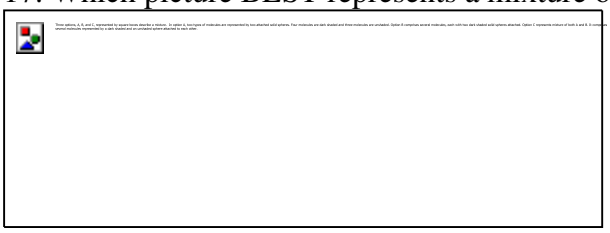
b. b

c. c

d. All of these pictures represent a pure element.

ANSWER: b

17. Which picture BEST represents a mixture of pure elements?



a. a

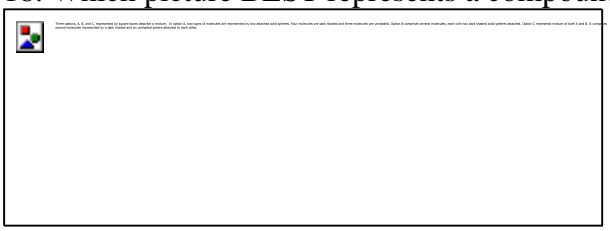
b. b

c. c

d. All of these pictures represent a mixture of pure elements.

ANSWER: a

18. Which picture BEST represents a compound?



a. a

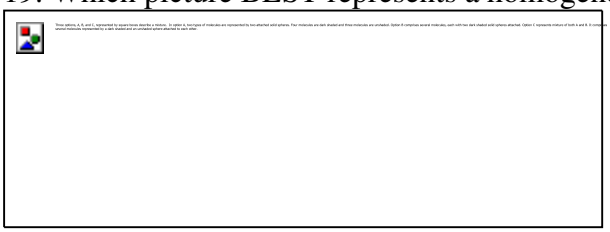
b. b

c. c

d. All of these pictures represent a compound.

ANSWER: c

19. Which picture BEST represents a homogeneous mixture?



a. a

b. b

c. c

d. All of these pictures represent a homogeneous mixture.

ANSWER: a

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20. Which mixture is heterogeneous?
    a. water from a creek or small river
    b. purified water
    c. fresh milk recently purchased from the grocery store
    d. a cup of black coffee

ANSWER: a

21. A student accidently adds a chemical compound to a flask filled with water. The chemical compound completely dissolves in the water. The professor instructs the student that they can get the compound back by heating the solution until all of the water evaporates, leaving behind the original chemical compound. The process of getting the original chemical compound back _____.
    a. involves both chemical and physical changes
    b. involves only chemical changes or processes
    c. involves only physical changes or processes
    d. involves neither chemical nor physical changes

ANSWER: c

22. Which weight has the GREATEST potential energy?
    a. a 2-pound weight resting on the floor
    b. a 2-pound weight on a shelf 3 feet above the ground
    c. a 2-pound weight on the roof of a house
    d. a 2-pound weight at the top of a skyscraper

ANSWER: d

23. Which example BEST describes something moving to a higher energy state?
    a. a ball rolling off a table
    b. a carbonated 2-liter bottle of soda erupting after it is opened for the first time
    c. organizing your room
    d. riding a bicycle down a hill

ANSWER: c

24. Which example has the MOST kinetic energy?
    a. a car driving at 80 mph
    b. a snail moving across the ground
    c. an airplane flying over Texas
    d. a 2-pound weight resting on the floor

ANSWER: c

25. Energy harvested by plants from sunlight allows for the storage of glucose in their cells. When plants do this, their _____ increases.
    a. potential energy
    b. kinetic energy

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c. heat energy
d. force

ANSWER: a

26. Which process is endothermic?
a. burning wood in a fireplace
b. heating water to convert it to steam
c. burning gasoline in a combustion engine
d. digesting food

ANSWER: b

27. Liquid gasoline is heated and becomes gasoline vapor. The gasoline vapors are then ignited by a spark causing a fire. The entire process is _____.
a. first an exothermic change followed by an endothermic process
b. first an endothermic change followed by an exothermic process
c. only exothermic changes
d. only endothermic changes

ANSWER: b

28. A highly reactive chemical compound reacts with another compound and produces products that are more stable than the initial reactants. During this chemical reaction, heat was released. According to this information, this reaction was _____.
a. exothermic
b. endothermic
c. both exothermic and endothermic
d. We are unable to tell from the information provided.

ANSWER: a

29. Of the choices given, the molecules of water in a(n) _____ have the MOST kinetic energy.
a. ice cube
b. glass of cool water
c. mug of hot but not boiling water
d. pot of boiling water

ANSWER: d

30. A student adds a chemical compound to a beaker filled with water. As the compound dissolves in the water, the student notices the beaker getting colder. According to this information, the reaction occurring within the beaker _____.
a. is exothermic
b. is endothermic
c. is both exothermic and endothermic
d. does not undergo a change in energy

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ANSWER: b

31. After testing and refining ideas, scientists often develop a model that explains why things behave as they do and predicts what will happen in the future. This type of model is BEST referred to as a _____.

a. theory
b. scientific law
c. hypothesis
d. postulate

ANSWER: a

32. A patient arrives at a doctor's office complaining of head congestion and lethargy. The nurse thinks the patient may have a sinus infection. The nurse is making a _____ concerning the patient's condition.

a. theory
b. scientific law
c. hypothesis
d. postulate

ANSWER: c

33. Which statement is FALSE?

a. Scientific laws describe observations that are true in widely varying circumstances.
b. Theories describe how or why something happens.
c. Theories one day become scientific laws.
d. Theories are supported by scientific evidence.

ANSWER: c

34. Which undergoes continued testing and refinement so that we know more about how something happens in nature?

a. theory
b. scientific law
c. hypothesis
d. experiment

ANSWER: a

35. Which statement is TRUE?

a. Scientific laws do not explain why something happens.
b. An experiment is used to test a scientific theory.
c. Scientific laws can be changed to theories.
d. Theories are rarely supported by scientific evidence.

ANSWER: a

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