

**Chapter 1 and 2 Test with lab equipment and hazards**

- 1. This is a practice test to help you get ready for your first test.**
- 2. You need to also go back and study your lecture notes, annotations and worksheets.**
- 3. You will need your own pencil for the test.**
- 4. I will not answer questions about the practice test after tutorials so you need to get your questions answered early.**

**True/False**

*Indicate whether the statement is true or false.*

- \_\_\_\_\_ 1. The earth is an open system to matter.
- \_\_\_\_\_ 2. Energy is input from the sun and radiates out into space.
- \_\_\_\_\_ 3. Matter cycles between living and nonliving things.
- \_\_\_\_\_ 4. New matter can reach the earth.

**Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 5. Which of the following **CANNOT** be classified as a substance?
- |               |              |
|---------------|--------------|
| a. Gold       | c. Nitrogen  |
| b. Table Salt | d. Corrosion |
- \_\_\_\_\_ 6. Which of the following processes do **NOT** involve a change in chemical properties?
- |            |               |
|------------|---------------|
| a. Boiling | c. Burning    |
| b. Rusting | d. Fermenting |
- \_\_\_\_\_ 7. The left hand side of a reaction is called the:
- |              |             |
|--------------|-------------|
| a. Reactants | b. Products |
|--------------|-------------|
- \_\_\_\_\_ 8. The study of the composition and structure of matter is the domain of which field of science?
- |              |            |
|--------------|------------|
| a. Biology   | c. Physics |
| b. Chemistry | d. Geology |
- \_\_\_\_\_ 9. A mixture can either be:
- |                                 |                             |
|---------------------------------|-----------------------------|
| a. Heterogeneous or Homogeneous | b. An element or a compound |
|---------------------------------|-----------------------------|
- \_\_\_\_\_ 10. All of the following changes to a metal are physical changes **EXCEPT**
- |            |              |
|------------|--------------|
| a. Rusting | d. Bending   |
| b. Cutting | e. Polishing |
| c. Melting |              |
- \_\_\_\_\_ 11. Matter is defined as anything that \_\_\_\_\_.
- |                                |                                  |
|--------------------------------|----------------------------------|
| a. has a definite volume.      | c. can be weighed on a balance.  |
| b. has mass and takes up space | d. has a fixed volume and weight |
- \_\_\_\_\_ 12. All of the following are physical properties of matter **EXCEPT** \_\_\_\_\_.
- |                  |                  |
|------------------|------------------|
| a. melting Point | c. explosiveness |
| b. mass          | d. luster        |

- \_\_\_\_\_ 13. One difference between a mixture and a compound is that \_\_\_\_\_.
- a. a mixture must be uniform in composition
  - b. a compound can only be separated into its components by chemical means
  - c. a mixture can only be separated into its components by chemical means
  - d. a compound is made up of more than one phase
- \_\_\_\_\_ 14. A friend observes a burning candle and comments that the **matter is lost** because the wax is gone as the candle burns. Your friend's comment is ...
- a. True
  - b. False
- \_\_\_\_\_ 15. Which of the following is true for all chemical reactions (**law of conservation of mass**)?
- a. The mass of the products is less than the mass of the reactants
  - b. The mass of the products is greater than the mass of the reactants
  - c. The mass of the products is equal to the mass of the reactants
- \_\_\_\_\_ 16. Which of the following is often easily separated into its components by techniques such as filtering or decanting?
- a. Compounds
  - b. Homogeneous mixture
  - c. Heterogeneous mixture
  - d. Elements
- \_\_\_\_\_ 17. Which law best describes that energy is neither created nor destroyed?
- a. law of conservation of matter
  - b. law of thermodynamics
- \_\_\_\_\_ 18. Which of the following materials is a pure substance?
- a. Air
  - b. Carbon
  - c. Gasoline
  - d. Hardness
  - e. Color
- \_\_\_\_\_ 19. Which of the following is a homogeneous mixture?
- a. Raisin Bread
  - b. Sand and water
  - c. Soda
  - d. Beef Stew
  - e. Soil
- \_\_\_\_\_ 20. Which of the following is **NOT** a pure substance?
- a. Apple juice
  - b. Water
  - c. Liquid Oxygen
  - d. Liquid Helium
- \_\_\_\_\_ 21. Which state of matter is characterized by having its particles spaced far apart?
- a. Solid
  - b. Liquid
  - c. Gas
  - d. Bose-Einstein Condensate
- \_\_\_\_\_ 22. Chemistry is chiefly concerned with the study of which of the following types of in substances?
- a. Changes in Volume
  - b. Changes in Shape
  - c. Changes in Composition
  - d. Changes in Emotion
  - e. Changes in Location
- \_\_\_\_\_ 23. Which state of matter is compressible?
- a. Solid
  - b. Condensate
  - c. Liquid
  - d. Gas
  - e. Colloid

- \_\_\_\_\_ 24. Sublimation is ...
- a. a chemical change in which a solid changes to a gas
  - b. a chemical change in which a liquid turns to a solid
  - c. a physical change in which a liquid changes to a gas
  - d. a physical change in which a solid turns to a gas
- \_\_\_\_\_ 25. Separating a solid from a liquid by evaporating the liquid is called \_\_\_\_\_.
- a. Condensation
  - b. Distillation
  - c. Emulsification
  - d. Theorizing
- \_\_\_\_\_ 26. Which piece of equipment holds a crucible and lid over a flame?
- a. ring stand
  - b. ring clamp
  - c. pipe stem triangle
  - d. buret clamp
- \_\_\_\_\_ 27. Which of the following is a heterogeneous mixture?
- a. nitrogen
  - b. salt water
  - c. steel
  - d. soil
- \_\_\_\_\_ 28. What is the process when a gas changes into a liquid?
- a. Sublimation
  - b. Evaporation
  - c. Condensation
  - d. Melting
  - e. Elevation



- \_\_\_\_\_ 29. What is the proper name for this piece of lab equipment?
- a. Test tube holders
  - b. Tweezers
  - c. Tongs
  - d. Forceps
- \_\_\_\_\_ 30. We read a graduated cylinder from the bottom of the:
- a. meniscus
  - b. water line
- \_\_\_\_\_ 31. What piece of equipment holds various clamps?
- a. Ring stand
  - b. Ring clamp
  - c. Test tube clamp
  - d. Pipe stem triangle



- \_\_\_\_\_ 32. What is the correct name of this piece of lab equipment?
- |             |                     |
|-------------|---------------------|
| a. Scoopula | c. Pneumatic Trough |
| b. Funnel   | d. Watch glass      |
- \_\_\_\_\_ 33. Which of the following display kinetic energy?
- |                       |                       |
|-----------------------|-----------------------|
| a. sleeping           | c. an apple on a tree |
| b. sitting on a bench | d. hiking up a hill   |
- \_\_\_\_\_ 34. NaOH, sodium hydroxide, can be classified as:
- |                |                         |
|----------------|-------------------------|
| a. an irritant | b. a corrosive chemical |
|----------------|-------------------------|

**Multiple Response**

*Identify one or more choices that best complete the statement or answer the question.*

- \_\_\_\_\_ 35. Which of the following are mixtures?
- |          |                   |
|----------|-------------------|
| a. Salt  | c. Salad dressing |
| b. Water | d. Cereal         |
- \_\_\_\_\_ 36. Which of the following are substances?
- |                   |                   |
|-------------------|-------------------|
| a. Helium         | d. Diet Coke      |
| b. Water          | e. Mint Ice Cream |
| c. Carbon dioxide |                   |

**Chapter 1 and 2 Test with lab equipment and hazards  
Answer Section****TRUE/FALSE**

- |           |        |
|-----------|--------|
| 1. ANS: F | PTS: 1 |
| 2. ANS: T | PTS: 1 |
| 3. ANS: T | PTS: 1 |
| 4. ANS: F | PTS: 1 |

**MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 5. ANS: D  | PTS: 1 |
| 6. ANS: A  | PTS: 1 |
| 7. ANS: A  | PTS: 1 |
| 8. ANS: B  | PTS: 1 |
| 9. ANS: A  | PTS: 1 |
| 10. ANS: A | PTS: 1 |
| 11. ANS: B | PTS: 1 |
| 12. ANS: C | PTS: 1 |
| 13. ANS: B | PTS: 1 |
| 14. ANS: B | PTS: 1 |
| 15. ANS: C | PTS: 1 |
| 16. ANS: C | PTS: 1 |
| 17. ANS: B | PTS: 1 |
| 18. ANS: B | PTS: 1 |
| 19. ANS: C | PTS: 1 |
| 20. ANS: A | PTS: 1 |
| 21. ANS: C | PTS: 1 |
| 22. ANS: C | PTS: 1 |
| 23. ANS: D | PTS: 1 |
| 24. ANS: D | PTS: 1 |
| 25. ANS: B | PTS: 1 |
| 26. ANS: C | PTS: 1 |
| 27. ANS: D | PTS: 1 |
| OBJ: 2.2.2 |        |
| 28. ANS: C | PTS: 1 |
| 29. ANS: D | PTS: 1 |
| 30. ANS: A | PTS: 1 |
| 31. ANS: A | PTS: 1 |
| 32. ANS: B | PTS: 1 |
| 33. ANS: D | PTS: 1 |
| 34. ANS: A | PTS: 1 |

DIF: L1

REF: p. 45

**MULTIPLE RESPONSE**

- 35. ANS: C, D           PTS: 1
- 36. ANS: A, B, C       PTS: 1