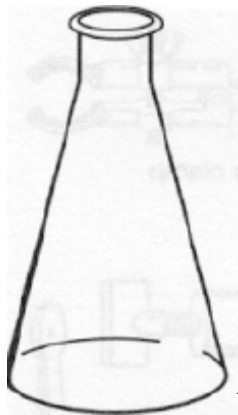


Chapter 1 and 2 Practice Test**Multiple Choice**

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

- _____ 1. One difference between a mixture and a compound is that _____.
- a. a compound is made up of more than one phase
 - b. a mixture must be uniform in composition
 - c. a mixture can only be separated into its components by chemical means
 - d. a compound can only be separated into its components by chemical means
- _____ 2. A chemical reaction occurs when
- a. you open a soda bottle.
 - b. substances change physical state, such as a solid turning into a liquid.
 - c. substances are mixed together, such as salt mixing with sand.
 - d. substances where atoms combine together to form new molecules.
- _____ 3. The study of the composition and structure of matter is the domain of which field of science?
- a. Biology
 - b. Physics
 - c. Geology
 - d. Chemistry

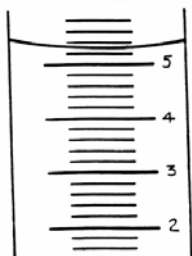


- _____ 4. What is the correct name of this piece of lab equipment?
- a. Erlenmeyer flask
 - b. Beaker
 - c. Wash bottle
 - d. Psychrometer
- _____ 5. Which state of matter has a fixed volume?
- a. Gas
 - b. Solid
 - c. Liquid
 - d. Both B and C
- _____ 6. Which of the following is **NOT** a physical change?
- a. Fermenting of cheese
 - b. Slicing of cheese
 - c. Melting of cheese

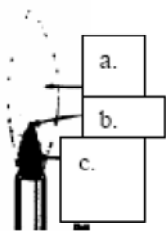
- _____ 7. All of the following changes to a metal are physical changes **EXCEPT**
- a. Cutting
 - b. Polishing
 - c. Melting
 - d. Bending
 - e. Rusting
- _____ 8. When ammonium nitrate explodes, the products are nitrogen, oxygen and water. When 40 grams of ammonium nitrate explode, 14 grams of nitrogen and 8 grams of oxygen form. How many grams of water form?
- a. 6
 - b. 18
 - c. 21
 - d. 22
- _____ 9. Which of the following is true for all chemical reactions (**law of conservation of mass**)?
- a. The mass of the products is equal to 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 less than the mass of the reactants
- _____ 10. **Which of the following lists goes in order from the least accurate to the most accurate?**
- a. beaker, volumetric pipet, graduated pipet, graduated cylinder
 - b. beaker, graduated cylinder, graduated pipet, Erlenmeyer flask
 - c. volumetric pipet, graduated pipet, graduated cylinder, beaker
 - d. beaker, graduated cylinder, graduated pipet, volumetric pipet
- _____ 11. When paper becomes yellow-brown in color upon exposure to sunlight (starts to burn), what type of change is likely taking place?
- a. Chemical Change
 - b. Physical Change
 - c. Neither
- _____ 12. A chemical change occurs when a piece of wood _____.
- a. decays
 - b. is cut
 - c. is split
 - d. is painted
- _____ 13. Sublimation is ...
- a. a chemical change in which a liquid turns to a solid
 - b. a physical change in which a liquid changes to a gas
 - c. a chemical change in which a solid changes to a gas
 - d. a physical change in which a solid turns to a gas
- _____ 14. The study of chemicals that, in general, do not contain carbon is traditionally called what type of chemistry?
- a. analytical
 - b. bio
 - c. physical
 - d. inorganic
- _____ 15. One characteristic of a scientific theory is that _____.
- a. it cannot be modified
 - b. it summarizes a set of observations
 - c. it can be proved
 - d. it can never be proved



- _____ 16. What is the proper name for this piece of lab equipment?
- a. Test tube holders c. Tongs
b. Tweezers d. Forceps
- _____ 17. Which state of matter is compressible?
- a. Solid d. Liquid
b. Condensate e. Colloid
c. Gas
- _____ 18. Which of the following processes do **NOT** involve a change in chemical properties?
- a. Boiling c. Rusting
b. Fermenting d. Burning



- _____ 19. Graduated cylinder What is the volume of the graduated cylinder to the left? (Assume that the units are mL)
- a. 5.3 mL c. 6.5 mL
b. 6.1 mL d. 5.15 mL
- _____ 20. All of the following are physical properties of matter **EXCEPT** _____.
- a. luster c. explosiveness
b. mass d. melting Point
- _____ 21. Which of the following is NOT a physical property of water?
- a. It is composed of hydrogen and oxygen.
b. It has a boiling point of 100°C.
c. Sugar dissolves in it.
d. It is a colorless liquid.



- _____ 22. What is the hottest part of the flame of a Bunsen burner?
 a. A c. C
 b. B
- _____ 23. **When diluting an acid, always pour concentrated acid into water.**
 a. true b. false
- _____ 24. **In order to advance to the level of a theory, a hypothesis should be**
 a. repeatedly confirmed by experimentation. c. in alignment with past theories.
 b. a fully functional experiment. d. obviously accepted by most people.
- _____ 25. What is the first step of the scientific theory?
 a. Reaching a conclusion d. Making an observation
 b. Stating a theory e. conducting an experiment
 c. formulating a hypothesis
- _____ 26. The separation of salt and sand can be classified as a:
 a. Physical Change b. Chemical Change
- _____ 27. Which of the following pairs can only be separated by physical means?
 a. Mixtures to substances b. Compounds to elements
- _____ 28. Which state of matter is characterized by having an indefinite shape, but a definite volume?
 a. gas c. liquid
 b. solid d. none of the above



- _____ 29. What is the correct name of this piece of lab equipment?
 a. Evaporating Dish c. Mortar and Pestle
 b. Chemical bowl d. Pipet
- _____ 30. Matter is defined as anything that _____.
 a. has mass and takes up space c. can be weighed on a balance.
 b. has a fixed volume and weight d. has a definite volume.
- _____ 31. The difference between a scientific theory and a scientific law is that _____.
 a. a theory only summarizes observations; a law attempts to explain observations c. a law only summarizes observations; a theory attempts to explain observations
 b. There is no difference

Name: _____

ID: A



- _____ 53. What is the correct name of this piece of lab equipment?
- | | |
|-------------|---------------------|
| a. Scoopula | c. Pneumatic Trough |
| b. Funnel | d. Watch glass |

Multiple Response

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

- _____ 54. Which of the following changes are chemical? **Choose all that apply.**
- | | |
|----------------------------|----------------------|
| a. Salt dissolves in water | c. Water boils |
| b. A firefly emits light | d. Cookies are baked |
- _____ 55. Which of the following is a state of matter? (choose all that apply)
- | | |
|------------|---------------|
| a. Colloid | c. Suspension |
| b. Liquid | d. Gas |

**Chapter 1 and 2 Practice Test
Answer Section**

MULTIPLE CHOICE

- | | | | | |
|-----|------------|-------------|---------|------------|
| 1. | ANS: D | PTS: 1 | | |
| 2. | ANS: D | PTS: 1 | | |
| 3. | ANS: D | PTS: 1 | | |
| 4. | ANS: A | PTS: 1 | | |
| 5. | ANS: D | PTS: 1 | | |
| 6. | ANS: A | PTS: 1 | | |
| 7. | ANS: E | PTS: 1 | | |
| 8. | ANS: B | PTS: 1 | | |
| 9. | ANS: A | PTS: 1 | | |
| 10. | ANS: D | PTS: 1 | | |
| 11. | ANS: A | PTS: 1 | | |
| 12. | ANS: A | PTS: 1 | | |
| 13. | ANS: D | PTS: 1 | | |
| 14. | ANS: D | PTS: 1 | DIF: L2 | REF: p. 8 |
| | OBJ: 1.1.1 | | | |
| 15. | ANS: D | PTS: 1 | DIF: L1 | REF: p. 23 |
| | OBJ: 1.3.2 | | | |
| 16. | ANS: D | PTS: 1 | | |
| 17. | ANS: C | PTS: 1 | | |
| 18. | ANS: A | PTS: 1 | | |
| 19. | ANS: A | PTS: 1 | | |
| 20. | ANS: C | PTS: 1 | | |
| 21. | ANS: A | PTS: 1 | DIF: L2 | REF: p. 40 |
| | OBJ: 2.1.2 | | | |
| 22. | ANS: B | PTS: 1 | | |
| 23. | ANS: A | PTS: 1 | | |
| 24. | ANS: A | | | |
| | Exper. 1.F | | | |
| | PTS: 1 | | | |
| 25. | ANS: D | PTS: 1 | | |
| 26. | ANS: A | PTS: 1 | | |
| 27. | ANS: A | PTS: 1 | | |
| 28. | ANS: C | PTS: 1 | DIF: L1 | REF: p. 41 |
| | OBJ: 2.1.3 | STA: Ch.2.d | | |
| 29. | ANS: A | PTS: 1 | | |
| 30. | ANS: A | PTS: 1 | | |

31. ANS: C PTS: 1
32. ANS: A PTS: 1 DIF: L2 REF: p. 22
OBJ: 1.3.2
33. ANS: A PTS: 1
34. ANS: B PTS: 1
35. ANS: D PTS: 1
36. ANS: C PTS: 1 DIF: L1 REF: p. 45
OBJ: 2.2.2
37. ANS: D PTS: 1
38. ANS: A PTS: 1 DIF: L1 REF: p. 45
OBJ: 2.2.2 STA: Ch.6
39. ANS: B PTS: 1
40. ANS: B PTS: 1
41. ANS: A PTS: 1
42. ANS: A PTS: 1 DIF: L1 REF: p. 45
OBJ: 2.2.2
43. ANS: C PTS: 1 DIF: L2 REF: p. 28
OBJ: 1.4.1
44. ANS: B PTS: 1
45. ANS: C PTS: 1
46. ANS: D PTS: 1 DIF: L1 REF: p. 55
OBJ: 2.4.3 STA: Ch.3
47. ANS: B PTS: 1
48. ANS: B PTS: 1 DIF: L1 REF: p. 42
OBJ: 2.1.3
49. ANS: C PTS: 1 DIF: L1 REF: p. 53
OBJ: 2.4.1 STA: Ch.8
50. ANS: A PTS: 1 DIF: L1 REF: p. 39
OBJ: 2.1.1
51. ANS: C PTS: 1
52. ANS: D PTS: 1
53. ANS: B PTS: 1

MULTIPLE RESPONSE

54. ANS: B, D PTS: 1
55. ANS: B, D PTS: 1