

All about Acid & Base Quiz

Name: _____

Date: _____

Multiple Choice. Encircle the letter that corresponds to the correct answer.

1. Bases react with _____.

- a. neither acids, salts, nor water
- b. water to produce acids and salts
- c. salts to produce acids and water
- d. acids to produce salts and water

2. Which of the following is *false* about acids and bases?

- a. Acids are substances that donate protons.
- b. Bases are substances that accept electrons.
- c. A base is any substance that produces OH^- in aqueous solutions.
- d. An acid is any substance that produces H^+ when dissolved in water.

3. Which type of reaction always forms a salt and water?

- a. exothermic
- b. neutralization
- c. oxidation
- d. polymerization

4. One of the physical properties that all acids have is _____.

- a. being colorless
- b. bitter taste
- c. color
- d. sour taste

5. Which ion do bases contain?

- a. H^+
- b. H_3O^+
- c. NH_4^+
- d. OH^-

6. Acids turn litmus paper into _____.

- a. blue
- b. red
- c. violet
- d. yellow

7. Which of the following is a characteristic of bases?

- a. dry
- b. moist
- c. rough
- d. slippery

8. A pure substance made of two or more elements that are chemically combined is called _____.

- a. compound
- b. mixture
- c. solution
- d. suspension

9. How is a mixture different from a compound?

- a. Mixtures are commonly found in nature.
- b. Mixtures have two or more components.
- c. Solids, liquids, and gases can form a mixture.
- d. Each substance in a mixture keeps most of its characteristic properties.

- ☐ 10. Metals, nonmetals, and metalloids are characteristic properties of _____.
a. alloys
b. compounds
c. elements
d. mixtures
- ☐ 11. Which of the following substances can be separated into simpler substances only by chemical means?
a. magnesium
b. salt water
c. silver
d. water
- ☐ 12. A(n) _____ can be separated by filtration.
a. alloy
b. compound
c. element
d. mixture
- ☐ 13. Which of the following is *not* considered a mixture?
a. emulsion
b. potassium chloride
c. shaving cream
d. tea
- ☐ 14. Which of the following lists contain pure elements?
a. air, water, oxygen
b. air, water, fire, earth
c. hydrogen, oxygen, brass
d. sodium, nitrogen, oxygen
- ☐ 15. Matter is defined as anything that _____.
a. has mass
b. occupies space
c. both A and B
d. none of these
- ☐ 16. A pH scale reading of less than 7 at 25°C indicates a(an) _____ medium.
a. acidic
b. basic
c. neutral
d. unknown
- ☐ 17. Phenolphthalein solution turns bases _____.
a. colorless
b. green
c. reddish pink
d. yellow
- ☐ 18. A pH scale reading of _____ indicates a weak base.
a. 2
b. 6
c. 8
d. 13
- ☐ 19. Methyl orange solution turns bases _____.
a. colorless
b. orange
c. pink
d. yellow
- ☐ 20. Acetic acid is a weak acid, while _____ is a strong acid.
a. boric acid
b. carbonic acid
c. hydrochloric acid
d. oxalic acid