

Test 1

1. Who is credited with the invention of the modern periodic table?
A. Nobel B. Mendel C. Mendeleev
2. The substances that are the result of a chemical reaction are called
A. Reactants. B. Products. C. Catalysts.
3. A substance that is used to speed up a chemical reaction but is not used as part of the reaction is called a
A. Reactant. B. Product. C. Catalyst.
4. After a chemical reaction, the properties of the products are
A. The same as the properties of the reactants.
B. Different than the properties of the reactants.
C. A combination of the properties of the reactants.
5. A bond where electrons are transferred is called a/an
A. Covalent bond. B. Ionic bond. C. Transfer bond
6. The part of the atom involved in chemical bonding is the
A. Nucleus. B. Valence electrons. C. Protons.
7. An atom is considered to be _____ when the number of protons and electrons are equal.
A. Positive B. Negative C. Neutral
8. A chemical reaction where energy is released is called
A. Endothermic. B. Exothermic.
9. A chemical reaction in which energy is absorbed is called
A. Endothermic. B. Exothermic.
10. A precipitate is a
A. Gas. B. Liquid. C. Solid substance.
11. A bond that occurs between metals and nonmetals is called a/an

A. Ionic bond. B. Covalent bond. C. Metal bond.

12. A bond that occurs between nonmetals and nonmetals is called a/an

A. Ionic bond. B. Covalent bond. C. Nonmetal bond.

13. A bond where electrons are shared is called a/an

A. Ionic bond. B. Covalent bond. C. Shared bond.

14. A glowing splint that relights in a test tube tests for this gas.

A. Nitrogen B. Hydrogen C. Oxygen

15. A lighted match put near a test tube that produces a popping sound tests for this gas.

A. Nitrogen B. Hydrogen C. Oxygen

16. In the chemical reaction between hydrochloric acid and calcium carbonate, which of the following elements cannot be part of the products?

- A. Carbon (C)
- B. Nitrogen (N)
- C. Chlorine (Cl)
- D. Hydrogen (H)

17. Which of the following is an example of a chemical reaction?

A. Tearing paper B. Evaporating water C. Baking a cake

18.

Lithium, a highly reactive metal, is a member of the alkali metals. Use the periodic table to determine which element would have chemical properties that are similar to lithium.

A. Sodium B. Carbon C. Oxygen

19. Which element on the periodic table has physical properties MOST similar to the physical properties of chlorine?

A. Sodium B. Oxygen C. Fluorine

20. What type of metal the element of Lithium corresponds according to the periodic table of elements?

A. Alkali earth metal B. Transition metal C. Alkali metal

21. What is the test to distinguish between alkanes and alkenes?

A. Bromine water test

B. keep them near glowing splints

C. lime water test

22. What is addition polymerization?

A. It is the addition of one extra monomer

B. Polymerization is the process of joining many alkanes together to form a long chain of monomers.

C. Polymerization is the process of joining many alkenes together to form a long chain of monomers.

23. What are saturated bonds?

A. these are single covalent bonds

B. these are when no more substances can be dissolved in products of oil

C. these are double covalent bonds

24. What is the formula for alkenes?

A. C_nH_{2n}

B. C_nH_{2n+2}

C. C_2nH_{2n}

25. What is the formula for alkanes?

A. C_nH_{2n}

B. C_nH_{2n+2}

C. C_2nH_{2n}

26. Solid to a liquid is

A. Melting

B. Freezing

C. Sublimation

27. Liquid to a solid is

A. Melting

B. Freezing

C. Sublimation

28. Liquid to a gas is

A. Melting

B. Vaporization

C. Sublimation

29. Solid to a gas is

A. Melting

B. Vaporization

C. Sublimation

30. Gas to a liquid is

A. Condensation

B. Vaporization

C. Sublimation

31. If an atom contains 11 protons and 12 neutrons, its atomic number will be:

A. 11 B. 12 C. 23

32. A covalent bond is the result of:

A. transferring electrons B. transferring protons C. sharing an electron

33. If an atom gains an electron, it forms a:

A. positively charged ion B. negatively charged ion. C. covalent bond

34. Which of the following is an example of a compound?

A. water B. hydrogen gas C. chloride ion

35. An ionic bond occurs when one atom:

A. shares an electron with another atom
B. loses a proton and becomes positive
C. transfers an electron to another atom

36. The cohesion of water is caused by:

A. ionic bonds B. covalent bonds C. hydrogen bonds

37. A substance that has a pH lower than 7 would be considered a:

A. acid B. base C. ion

38. A carbon atom has six protons but has 7 neutrons, this carbon atom would be called a(n):

A. acid B. base C. isotope

39. Water-based liquids can be described as acidic, neutral, or basic, with respect to pH. Which of these describes milk?

A. Slightly Acidic B. Milk does not have a pH C. Neutral

40. What is the most common isotope of hydrogen?

A. protium B. deuterium C. tritium

41. What is the formula for alkynes?

A. C_nH_{2n} B. C_nH_{2n-2} C. $C_{2n}H_{2n}$

42. What type of metal the element of Sodium corresponds according to the periodic table of elements?

A. Alkali earth metal B. Transition metal C. Alkali metal

43.

Potassium, a highly reactive metal, is a member of the alkali metals. Use the periodic table to determine which element would have chemical properties that are similar to potassium.

A. Sodium B. Carbon C. Oxygen

44. What are σ bonds?

A. these are single covalent bonds

B. these are when no more substances can be dissolved in products of oil

C. these are double covalent bonds

45. What are π bonds?

A. these are single covalent bonds

B. these are when no more substances can be dissolved in products of oil

C. these are double covalent bonds

46. Which element on the periodic table has physical properties MOST similar to the physical properties of bromine?

A. Sodium B. Oxygen C. Chlorine

47. Who is credited with the invention of the modern periodic table?

A. Nobel B. Mendel C. Mendeleev

48. Which of these elements is a nonmetal?

A. Sodium B. Oxygen C. Potassium

49. A mole contains Avogadro's number of items. What is Avogadro's number?

A. 6023 B. 6.02×10^{23} C. 6.023×10^{-23}

50. Which of these elements is a metal?

A. Sodium B. Oxygen C. Sulfur

The key	
1	A
2	B
3	C
4	B
5	C
6	B
7	C
8	B
9	A
10	B
11	A
12	B
13	B
14	C
15	B
16	B
17	C
18	A
19	C
20	C
21	A
22	B
23	A
24	A
25	B
26	A
27	B
28	B
29	C
30	A
31	A
32	C
33	B
34	A
35	C
36	C
37	A
38	C
39	C
40	A
41	B
42	C
43	A
44	A
45	C
46	C
47	C
48	B
49	B
50	A

