

GIARRANO-SENIOR COSMETOLOGY- OFF-SITE LEARNING PACKET DAY 2

DIRECTIONS:

1. IF YOUR PACKET BEGINS WITH A SUMMARY AND REVIEW PLEASE READ THOSE PAGES FIRST
2. COMPLETE THE WORK SHEETS AND VOCABULARY WHERE IF INCLUDED. YOU MAY GOOGLE AND REFERENCE THE MILADY WEB SITE FOR VOCABULARY WORDS. NOT ALL ASSIGNMENTS CONTAIN VOCABULARY, OR WORK SHEETS. THEY MAY BE SLIGHTLY DIFFERENT.
3. COMPLETE THE PRACTICE TESTS TO THE BEST OF YOUR ABILITY.
4. YOU MAY USE YOUR MILADY OR COURSEMATE ONLINE PROGRAM TO ASSIST YOU IN ANY WAY.
5. PLEASE PUT YOUR NAME ON EVERY PAGE YOU HAVE COMPLETED.

Chemistry and Electricity / Blizzard Bag**Multiple Choice**

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

- ____ 1. Any substance that occupies space is considered to be:
a. organic
b. form
c. matter
d. units
- ____ 2. The simplest form of matter that cannot be broken down without the loss of identity is a(n):
a. element
b. energy
c. substance
d. mineral
- ____ 3. There are how many naturally occurring elements, each with its own distinctive physical and chemical properties?
a. 60
b. 70
c. 90
d. 100
- ____ 4. The difference between one element and another is the number of:
a. atoms they contain
b. deionized elements
c. occupying elements
d. balanced atoms
- ____ 5. The chemical compound sodium chloride is:
a. shampoo
b. table salt
c. sugar
d. distilled water
- ____ 6. The chemical combination of two or more atoms of different elements produces a(n):
a. compound
b. solution
c. neutral
d. acid
- ____ 7. Change in the form of a substance that does not cause a chemical change is a(n):
a. anion change
b. solid change
c. matter change
d. physical change
- ____ 8. Matter that has a fixed chemical composition and distinct properties is a:
a. physical mixture
b. physical blend
c. pure substance
d. pure combination
- ____ 9. A combination of two or more substances that are physically blended but not chemically joined is a:
a. physical mixture
b. chemical change
c. pure substance
d. chemical compound
- ____ 10. Liquids that can be mixed with each other without separating easily are:
a. incompatible
b. miscible
c. solvents
d. compatible
- ____ 11. A blended mixture of two or more liquids is a:
a. solvent
b. solute
c. solution
d. emulsion
- ____ 12. A substance, usually liquid, that dissolves another substance to form a solution is a(n):
a. solvent
b. immiscible
c. solute
d. solid
- ____ 13. Liquids that are not capable of being mixed into stable solutions are:
a. liquids
b. toxins
c. minerals
d. immiscible

Name: _____

- ___ 14. Suspensions differ from solutions in that suspensions contain particles that are:
a. emulsified
b. undissolved
c. invisible
d. elements
- ___ 15. Substances that act as a bridge to allow oil and water to mix are:
a. suspensions
b. mixtures
c. particles
d. surfactants
- ___ 16. The head of a surfactant molecule is:
a. lipophilic
b. aquatic
c. hydrophilic
d. hypersonic
- ___ 17. Substances used to neutralize acids or raise the pH of many hair products are:
a. automatic
b. alkanolamines
c. carbons
d. resolute
- ___ 18. An example of an ammonia compound that is used to raise the pH of hair is:
a. ionization hydroxide
b. ammonium hydroxide
c. glycerin substance
d. silicone solutions
- ___ 19. A sweet, colorless, oily substance that is used as a moisturizer in skin and body creams is:
a. silicone
b. ammonia
c. glycerin
d. alkanolamines
- ___ 20. A common volatile organic compound that evaporates quickly and is used in hair spray is:
a. ionized water
b. ammonia water
c. hydrogen peroxide
d. ethyl alcohol
- ___ 21. An atom or molecule that carries an electrical charge is a(n):
a. solution
b. ion
c. current
d. resolute
- ___ 22. Ions with a positive electrical charge are considered to be:
a. nonaqueous
b. cation
c. neutral
d. anion
- ___ 23. A solution with a pH value of 7 indicates a:
a. volatile solution
b. aqueous solution
c. neutral solution
d. acidic solution
- ___ 24. Another term that is used interchangeably to describe an alkali is:
a. foundation
b. metal
c. base
d. acid
- ___ 25. Chemical reactions that are characterized by or formed by giving off heat are:
a. neutralization
b. acidic
c. electrons
d. exothermic
- ___ 26. When oxygen is subtracted from a substance, the chemical reaction is called:
a. removal
b. reduction
c. suspended
d. transferred
- ___ 27. The path of an electric current from the generating source back to the original source is a(n):
a. incomplete circuit
b. complete circuit
c. insulating current
d. direct circuit
- ___ 28. Rubber, silk, wood, and glass are common examples of:
a. modalities
b. currents
c. insulators
d. converters

Name: _____

- ___ 29. The even-flowing electric current that travels in one direction only is:
 - a. indirect current
 - b. alternating current
 - c. electrode current
 - d. direct current
- ___ 30. A converter is an apparatus that changes direct current to:
 - a. indirect current
 - b. converted current
 - c. electrodes
 - d. alternating current
- ___ 31. Rapid and interrupted current that flows in one direction and then in the opposite direction is:
 - a. alternating current
 - b. auxiliary current
 - c. automatic current
 - d. indirect current
- ___ 32. Cordless electric clippers and battery chargers convert AC current from a wall unit to DC current needed to recharge DC batteries with the use of:
 - a. a rectifier
 - b. ohms
 - c. a converter
 - d. a conductor
- ___ 33. The term used to measure the strength of an electric current is:
 - a. electricity
 - b. cathode
 - c. amp
 - d. volt
- ___ 34. A measurement of how much electricity is being used in 1 second is a(n):
 - a. watt
 - b. ohm
 - c. kilowatt
 - d. volt
- ___ 35. The special device that prevents excessive current from passing through a circuit and overloading the circuit is a(n):
 - a. amp
 - b. ampere
 - c. fuse
 - d. insulator
- ___ 36. Careless electrical connections and overloaded circuits can result in an electric shock, burn, or:
 - a. fire
 - b. connection
 - c. indirect ray
 - d. electrons
- ___ 37. The electrical appliance connection that supplies current to the circuit is the:
 - a. prong connection
 - b. indirect connection
 - c. live connection
 - d. grounded connection
- ___ 38. Electronic facial treatments are commonly referred to as:
 - a. electrotherapy
 - b. electronics
 - c. receptacle
 - d. electromagnetic
- ___ 39. A glass or metal applicator that directs electric current from a machine to the client's skin is a(n):
 - a. electrode
 - b. cord
 - c. converter
 - d. rectifier
- ___ 40. The indication of the negative or positive pole of an electric current is referred to as the:
 - a. electrode
 - b. current
 - c. ampere
 - d. polarity
- ___ 41. The positive electrode is called the:
 - a. anode
 - b. device
 - c. cathode
 - d. galvanic
- ___ 42. Introducing water-soluble products into the skin with the use of electric current is a process known as:
 - a. desincrustation
 - b. iontophoresis
 - c. polarity
 - d. anode

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Name: _____

- _____ 43. Cataphoresis forces acidic substances into deeper tissues using galvanic current from the:
a. positive toward the negative pole c. negative toward the positive pole
b. inactive toward the electric pole d. negative toward the ohm pole
- _____ 44. The process frequently used to treat acne and milia and soften and emulsify deposits in the hair follicles is:
a. betaphoresis c. desincrustation
b. metaphoric d. anaphoresis
- _____ 45. Thermal or heat-producing current with a high rate of oscillation or vibration is:
a. Tesla current c. direct current
b. acidic current d. electrode current
- _____ 46. Rays with long wavelengths that penetrate the deepest and produce more heat than visible light are:
a. natural rays c. radio waves
b. ultraviolet rays d. infrared rays
- _____ 47. A combination light of all the visible rays of the spectrum is referred to as:
a. white light c. natural light
b. blue light d. infrared light
- _____ 48. Rays with short wavelengths that are the least penetrating, produce chemical effects, and kill germs are:
a. blue light c. ultraviolet rays
b. infrared rays d. red light rays
- _____ 49. Current that should not be used on clients who are pregnant, have high blood pressure, or have a pacemaker is:
a. white light c. alternating current
b. Tesla high-frequency d. battery current
- _____ 50. The distance between two successive peaks is called the:
a. radiation length c. therapy length
b. wavelength d. wave distance

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ESSENTIAL EXPERIENCE

Word Search

After determining the correct words from the clues provided, locate the words in the word search puzzle.

Word

Clue

Solution having a pH below 7.

Solution having a pH above 7.

Colorless gas with pungent odor, composed of hydrogen and nitrogen.

The smallest particle of an element that retains the properties of that element.

Science that deals with the composition, structures, and properties of matter.

Rapid oxidation of a substance.

Chemical combination of two or more atoms of different elements.

The simplest form of matter.

Water loving.

Not capable of being mixed.

Oil loving.

Any substance that occupies space, has physical and chemical properties, and exists in the form of a solid, liquid, or gas.

The addition of oxygen to, or the subtraction of hydrogen from, a substance.

A stable mixture of two or more mixable substances.

Surface-active agent.

An unstable mixture of undissolved particles in a liquid.

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ESSENTIAL EXPERIENCE

Matching Exercise—Electrical Measurements

Match the following essential terms with its definition or identifying term.

- | | |
|-----------------|--|
| ___ Volt | 1. Measurement of how much electric energy is being used in 1 second. |
| ___ Amp | 2. 1/1000 of an ampere. |
| ___ Milliampere | 3. The unit of measurement for the amount of current running through a wire |
| ___ Ohm | 4. Unit for measuring the pressure that forces the electric current forward. |
| ___ Watt | 5. The electricity in your house is measured in this manner. |
| ___ Kilowatt | 6. This unit measures the resistance of an electric current. |