

## Chapter 9—Electricity and Light Therapy

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### MULTIPLE CHOICE

- \_\_\_\_ is a form of energy that produces magnetic, chemical, or thermal effects while in motion.
  - Gas
  - Electricity
  - Proton
  - Ionism
- An example of a conductor is \_\_\_\_\_.
  - metal
  - carbon
  - the human body
  - All answers are correct.
- An electric \_\_\_\_ is composed of a conductor and an insulator.
  - switch
  - metal
  - plug
  - wire
- The current in a circuit can be controlled with an adjustable \_\_\_\_ called a rheostat.
  - resistor
  - conductor
  - converter
  - rectifier
- \_\_\_\_ current is a constant, even-flowing current that travels in one direction only.
  - Instant
  - Direct
  - Constant
  - Alternating
- Alternating current is a rapid and interrupted current that produces a \_\_\_\_ action.
  - direct
  - biological
  - mechanical
  - chemical
- A(n) \_\_\_\_ is a device that changes direct current to alternating current.
  - alternator
  - converter
  - rheostat
  - fuse
- A \_\_\_\_ is a device that changes alternating current to direct current.
  - rectifier
  - converter
  - rheostat
  - circuit breaker
- The volt is the unit that measures the pressure that pushes a flow of \_\_\_\_ through a conductor.
  - amps
  - photons
  - protons
  - electrons
- The \_\_\_\_ of an electrical current is measured in ohms.
  - pressure
  - speed
  - resistance
  - direction
- The amount of electric energy being used in one \_\_\_\_ is measured in watts.
  - second
  - minute
  - hour
  - day
- A \_\_\_\_ is a device that prevents too much current from passing through a circuit.
  - timer
  - fuse
  - converter
  - rectifier

13. The function of a \_\_\_\_ is to shut off an electric circuit at the first sign of overload.
  - a. volt
  - b. rectifier
  - c. meter
  - d. circuit breaker
14. All electrical appliances must have \_\_\_\_ electrical connections.
  - a. exactly one
  - b. at least two
  - c. three
  - d. several
15. Do not touch any \_\_\_\_ while using an electrical appliance.
  - a. carpet
  - b. wood
  - c. metal
  - d. other person
16. The different types of electric current used in \_\_\_\_ are known as modalities.
  - a. home heating
  - b. electrotherapy
  - c. home lighting
  - d. electrocution
17. The \_\_\_\_ applicators that direct electric current from a machine to a client's skin are called electrodes.
  - a. carbon
  - b. glass
  - c. metal
  - d. All answers are correct.
18. In electrotherapy, the \_\_\_\_ is the positive pole.
  - a. black pole
  - b. minus sign
  - c. anode
  - d. "N"
19. The \_\_\_\_ of an electric current indicates its negative or positive pole.
  - a. wattage
  - b. voltage
  - c. polarity
  - d. direction
20. The \_\_\_\_ modality, which produces chemical changes when passed through tissues and fluids, is the galvanic current.
  - a. most dangerous
  - b. hottest
  - c. most commonly used
  - d. least commonly used
21. The process that uses \_\_\_\_ current to facilitate deep pore cleansing is disincrustation.
  - a. galvanic
  - b. faradic
  - c. high-frequency
  - d. Tesla
22. Galvanic current is used to introduce \_\_\_\_ products into the skin in a process called iontophoresis.
  - a. chemical
  - b. non-soluble
  - c. oil-based
  - d. water-soluble
23. A(n) \_\_\_\_ and interrupted current that produces a mechanical reaction with no chemical effect is the faradic current.
  - a. direct
  - b. alternating
  - c. oscillating
  - d. rapid
24. The \_\_\_\_ current produces heat.
  - a. Tesla
  - b. high-voltage
  - c. alternating
  - d. All answers are correct.
25. About \_\_\_\_ percent of natural sunlight is made up of visible light.
  - a. 10
  - b. 35
  - c. 55
  - d. 65

26. \_\_\_\_ light provides germicidal benefits.
- a. Red
  - b. Blue
  - c. Yellow
  - d. Green
27. UV rays are used in tanning booths and \_\_\_\_ the skin tissue.
- a. remove germs from
  - b. produce a cooling effect on
  - c. are completely safe for
  - d. penetrate deeply into
28. \_\_\_\_ rays are destructive to bacteria, as well as to skin tissue if the skin is exposed to them for too long a period of time.
- a. UVA
  - b. UVB
  - c. UVC
  - d. UVD
29. \_\_\_\_ rays are pure heat rays.
- a. Ultraviolet
  - b. Infrared
  - c. Red
  - d. Visible
30. Exposure to UV rays may start at \_\_\_\_ minute(s) and gradually increase over a period of days to 7 to 8 minutes.
- a. 1
  - b. 2 to 3
  - c. 3 to 5
  - d. 3 to 6