

Chapter 1 - Safety

MULTIPLE CHOICE

1. Never work on an energized electrical circuit unless ____.
- a. told to do so by your supervisor
 - b. it is not possible to disconnect the power
 - c. you are sure you can safely make the repairs
 - d. a and c only

ANS: B PTS: 1

2. The most dangerous path for electrical shock through the body is ____.
- a. foot to foot
 - b. hand to foot
 - c. foot to hand
 - d. hand to hand

ANS: D PTS: 1

3. A current of 2 to 3 milliamperes passing through the body will generally cause ____.
- a. the heart to go into fibrillation
 - b. muscular paralysis and breathing difficulty
 - c. a person to seize the line and not be able to let go
 - d. a slight tingling sensation

ANS: D PTS: 1

4. ____ volts is generally the most dangerous to work with because it causes a current flow of 100 to 200 milliamperes through the body.
- a. 50
 - b. 120
 - c. 240
 - d. 600

ANS: B PTS: 1

5. The mission of the ____ is to ensure safe and healthful workplaces in the United States.
- a. Department of Labor
 - b. Department of Commerce
 - c. Bureau of Workman's Compensation
 - d. none of the above

ANS: D

Correct answer is Occupational Safety and Health Administration (OSHA).

PTS: 1

6. A current of 20 to 30 milliamperes passing through the body will generally cause ____.
- a. the heart to go into fibrillation
 - b. muscular paralysis and breathing difficulty
 - c. a person to seize the line and not be able to let go
 - d. a slight tingling sensation

ANS: C PTS: 1

7. A current of 100 to 200 milliamperes passing through the body will generally cause ____.
- a. the heart to go into fibrillation
 - b. muscular paralysis and breathing difficulty
 - c. a person to seize the line and not be able to let go

d. a slight tingling sensation

ANS: A PTS: 1

8. When a person puts a lock on a piece of equipment to lock it out, the key is kept by ____.
- a. the shift supervisor
 - b. the maintenance foreman
 - c. the person installing the lock
 - d. none of the above

ANS: C PTS: 1

9. An electrician's hard hat should be made of ____.
- a. aluminum
 - b. plastic
 - c. steel
 - d. tungsten

ANS: B PTS: 1

10. A safety harness and lanyard should be worn when working more than ____ feet above the floor or ground.
- a. 4
 - b. 6
 - c. 8
 - d. 10

ANS: B PTS: 1

11. Electricians should avoid working with ladders made of ____.
- a. wood
 - b. fiberglass
 - c. aluminum
 - d. both b and c

ANS: C PTS: 1

12. The highest usable step on a stepladder is ____.
- a. the top of the ladder
 - b. the top step of the ladder
 - c. the second step from the top of the ladder

ANS: B PTS: 1

13. A class ____ fire involves common combustible materials such as paper or wood.
- a. A
 - b. B
 - c. C
 - d. D

ANS: A PTS: 1

14. A class ____ fire involves grease, combustible liquids, or gases.
- a. A
 - b. B
 - c. C
 - d. D

ANS: B PTS: 1

15. A class ____ fire involves energized electrical equipment.
- a. A
 - b. B
 - c. C
 - d. D

ANS: C PTS: 1

16. A class ____ fire involves burning metal.
- a. A
 - b. B
 - c. C
 - d. D

ANS: D PTS: 1

17. ____ are used to prevent people from being shocked.

- a. GFCD's
- b. GFCP's
- c. GFEP's
- d. GFCI's

ANS: D PTS: 1

18. A GFCI will open the circuit when it detects a current difference of ____.

- a. 5 milliamperes
- b. 8 milliamperes
- c. 5 microamperes
- d. 8 microampere

ANS: A PTS: 1

19. ____ procedures are used to prevent someone from energizing an electrical circuit by mistake.

- a. Energized circuit
- b. Lock out
- c. Tag out
- d. Both b and c

ANS: D PTS: 1

20. All electrical lines and equipment should be considered ____ until determined otherwise.

- a. open
- b. energized
- c. shorted
- d. safe

ANS: B PTS: 1

21. OSHA part ____ deals mainly with regulations concerning electrical safety.

- a. 1900
- b. 1910
- c. 1940
- d. 1975

ANS: B PTS: 1

22. The person most responsible for your safety on the job site is ____.

- a. you
- b. the foreman
- c. the company
- d. OSHA

ANS: A PTS: 1

23. Article ____ of the NEC lists the requirements for grounding electrical systems.

- a. 210
- b. 250
- c. 1910
- d. 1926

ANS: B PTS: 1

24. What occurs when an intermittent gap between conductors or a conductor and ground permits current to jump between the two conductive surfaces.

- a. ground-fault
- b. arc-fault
- c. minimum current
- d. intermittent open

ANS: B PTS: 1

25. Which type of arc-fault is generally caused by loose connections?

- a. series
- b. parallel

ANS: A PTS: 1

COMPLETION

1. The most important rule of safety is to _____ before you act.

ANS: think

PTS: 1

2. _____ is the force that pushes current through the circuit.

ANS:
Voltage
Volts

PTS: 1

3. MSDS is an acronym for _____.

ANS: Material Safety Data Sheets

PTS: 1

4. When using a straight ladder on a wall 20 feet high, the base of the ladder should be _____ feet from the wall.

ANS: 5

PTS: 1

5. In order for a fire to burn, it must have oxygen, fuel, and _____.

ANS: heat

PTS: 1

6. _____ provides a low-resistance path to ground to prevent conductive objects from existing at a high potential.

ANS: Grounding

PTS: 1

7. The proper way to enter or exit a trench is by _____.

ANS: a ladder

PTS: 1

8. The type of arc-fault that is very difficult to detect is the _____ type.

ANS: series

PTS: 1

9. The current and temperature sensors permit the AFCI to operate as a circuit _____.

ANS: breaker

PTS: 1

10. The AFCI contains a white pigtail that is connected to the _____ bus bar in the panel box.

ANS: neutral

PTS: 1