

# ARC FLASH HAZARD AWARENESS

## Pre-Test Answer Key

Date: \_\_\_\_\_ Age: \_\_\_\_\_ Gender: M F

Participant Identification: \_\_\_\_\_

(Month and day of birth, first and last initials, example John Doe was born on December 1, his identification would be: 1201JD)

Circle the most appropriate answer.

1. Live parts of electrical equipment operating at 50 volts or more must be \_\_\_\_\_ to avoid accidental contact.
  - a. Insulated
  - b. Grounded
  - c. **Guarded**
  - d. Protected
  
2. Which of the following devices may be used for over-current protection?
  - a. Duplex outlet
  - b. **Circuit breaker**
  - c. Main disconnect
  - d. Ground rod
  
3. What is the minimum safe distance from energized overhead power lines?
  - a. **10 feet**
  - b. 15 feet
  - c. 20 feet
  - d. 10 feet 6 inches
  
4. Electric shock severity depends on:
  - a. What path the shock takes through the body.
  - b. How long the shock lasts.
  - c. **Both a. and b.**
  - d. None of the above
  
5. Currents greater than 75 milliamps can cause:
  - a. Tingling sensation
  - b. Slight shock
  - c. Burnt tissue
  - d. **Ventricular fibrillation**
  
6. All 120-volt single-phase 15- and 20-ampere receptacle outlets in Part 1926 sites that are not part of the permanent wiring must have:
  - a. Waterproof covers
  - b. **Ground fault circuit interrupters (GFCIs)**
  - c. Kill switches
  - d. Fuses

7. The temperature of an arc flash can potentially reach?
  - a. 12,000°F
  - b. 17,000°F
  - c. 25,000°F
  - d. 35,000°F
  
8. A lock and tag must be removed by whom?
  - a. The worker who is authorized
  - b. Any employee in the area
  - c. Any worker who will work on the machine
  - d. None of the above
  
9. Arc blast / Arc flash is the cause of most electrically related accidents and fatalities among:
  - a. Maintenance workers
  - b. Qualified workers
  - c. Unqualified workers
  - d. Equipment operators
  
10. The effects of an arc flash include:
  - a. Molten metal splatter
  - b. Damaging noise levels
  - c. High pressure forces
  - d. All of the above
  
11. An approach limit at a distance from exposed live parts within which a person could receive a second degree burn if an electrical arc flash were to occur is called the:
  - a. Limited approach boundary
  - b. Shock hazard boundary
  - c. Flash protection boundary
  - d. Electrical hazard area
  
12. What creates the pressure of an arc blast?
  - a. The expansion of the metal as it vaporizes.
  - b. The size of the space the electrical equipment is located in.
  - c. The heating of air by the arc energy.
  - d. Both a. and c.
  
13. Typical arc flash PPE consists of:
  - a. Flash suit
  - b. Hood
  - c. Gloves and leather protectors
  - d. All of the above
  
14. What is the best way to prevent arc flash injuries?
  - a. Always wear the proper PPE
  - b. Arc flash injuries can never be completely eliminated
  - c. Check the circuit for evidence of circuit overload
  - d. De-energize equipment before starting to work on the equipment

