

ARC FLASH HAZARD AWARENESS

Pre-Test

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