

Welding and Cutting Quiz

- 1) Voltages less than 50 volts: a) can cause fatal shock under all condition, b) cannot cause fatal shock under any conditions, c) can cause fatal shock under some conditions.
- 2) Arc welding machines are typically greater than 50 volts. T__ F__
- 3) A person who has wet hands or feet is more susceptible to electrocution than a person who is dry. T__ F__
- 4) Because metal frames in processing plants are intentionally well-grounded, a person in contact with such a frame while using an arc welder or other electrically-powered tools is much more susceptible to electrocution than one who is not. T__ F__
- 5) Hazards of arc welding include: a) Electrocution, b) Fires, c) Flesh burns to eyes from UV radiation, d) Burns from sparks, e) Metal fumes, f) Heat-related explosives g) Production of toxic gases when used near cleaning operations using chlorinated hydrocarbons.
- 6) Hazards of oxy fuel welding include: a) Fires, b) Explosion of oxygen, c) Explosion of acetylene, d) Fire and explosions when gases mix in lines, e) Metal fumes, f) Flash burns to eyes, g) Heat-related explosions.
- 7) An acetylene cylinder should: a) be transported on its side with the cap on, b) be transported upright with the cap on, c) be stored upright for a few hours prior to using if accidentally laid on its side.
- 8) Using oxygen to blow off clothing: a) is a fire hazard, b) results in an oxygen-enriched atmosphere in the clothing for some time after.
- 9) An oxy-acetylene torch: a) cuts steel, b) burns steel
- 10) Using oil or grease on an oxygen regulator: a) is likely to cause the grease to burn, b) is likely to cause the regulator to burn, c) is likely to cause the cylinder to explode and go airborne.
- 11) The valve on an oxygen cylinder must be opened: a) $\frac{1}{4}$ turn, b) $\frac{1}{2}$ turn, c) $\frac{3}{4}$ turn, d) all the way.
- 12) The valve on an acetylene cylinder must be opened: a) $\frac{1}{4}$ turn, b) $\frac{1}{2}$ turn, c) $\frac{3}{4}$ turn, d) all the way, e) never more than what allows the gage pressure to reach 15 psig.
- 13) Acetylene gas is extremely unstable when compressed. T__ F__.
- 14) Acetylene cylinders: a) are filled with a porous substance, such as calcium silicate to eliminate pockets of gaseous acetylene of appreciable size, b) have the acetylene dissolved in acetone.
- 15) Acetone can hold 400 times its own volume of acetylene at a working pressure up to 250 psig. T__ F__.
- 16) Oxygen and acetylene cylinders must: a) Have the cap when not in use, b) Be secured in the upright position both during storage and use, c) Be protected from being bumped when the regulator is on, d) Be stored at least 20 feet apart or separated by a noncombustible barrier at least five feet high with a fire-resistance rating of at least 1/2 hour.
- 17) Allowing the pressure in either cylinder in an oxyacetylene welding system to decrease below 20 psig: a) Is unsafe, b) May result in backflow of the gas from the other cylinder creating an explosive mixture.
- 18) Allowing the sun to heat a cylinder to 500 degrees F, could a) increase the pressure by over 10 %, b) increase the pressure by over 50 %, c) increase the pressure by over 100 %.
- 19) Taking oxy-acetylene welding cylinders into a confined space: a) is unsafe, b) could result in leakage of the gas causing a fire and explosion hazard,

- 20) Oxygen is: a) explosive b) makes everything in an oxygen-enriched atmosphere more flammable.
- 21) Regulators are required on oxygen and fuel gas cylinders. T__ F__
- 22) Before a regulator is attached to a cylinder valve: a) the valve should be "cracked" wide open, b) the valve should be opened slightly and immediately closed.
- 23) Fuel gas hoses are colored red. T__ F__
- 24) Oxygen hoses are colored green. T__ F__
- 25) Chemically inactive gas hoses are black. T__ F__
- 26) Hose clamps are suitable for splicing hoses used in oxy-acetylene welding applications. T__ F__
- 27) Matches and butane lighters are suitable for lighting a cutting/welding torch. T__ F__
- 28) When a welder is changing electrodes, he or she should be on a a) conductive, b) nonconductive surface
- 29) Electrodes should be removed from holders when the welder is turned off. T__ F__.
- 30) Polyester clothing should a) never b) usually c) always be worn when welding
- 31) Polyester is: a) flame resistant, b) burns easily, c) melts on your skin increasing the severity of burns.
- 32) Welding or cutting areas must be: a) protected from water, b) protected from wind, c) Fire safe
- 33) You can recognize whether or not fumes from a welding rod are hazardous by: a) looking at the color of the smoke, b) smelling the smoke, c) looking at the Material Safety Data Sheet.
- 34) Grease and oil must be stored at least a) 5 feet, b) 10 feet, c) 20 feet, d) 40 feet, e) 50 feet from oxygen.
- 35) Empty fuel gas and oxygen cylinders can be stored together? T__ F__
- 36) Personal protective equipment for welding or cutting includes: a) eye and face protection, b) skin protection, c) respiratory protection, d) hearing protection.
- 37) Effective ventilation is a better alternative than respiratory protection in most cases. T__ F__.
- 38) When personnel leave the confined space, the oxy-acetylene torch and hoses must be removed from the space. T__ F__

Answers: 1)c, 2)T, 3)T, 4)T, 5)abcdefg, 6)abcdefg, 7) bc, 8)ab, 9)b, 10)abc, 11)d, 12)e, 13)T, 14)ab, 15)T, 16)abcd, 17)ab, 18)c, 19)ab, 20)ab, 21)T, 22)b, 23)T, 24)T, 25)T, 26)F, 27)F, 28)b, 29)T, 30)a, 31)bc, 32)abc, 33)c, 34)d, 35)F, 36)abcd, 37)T, 38)T