ESD Basics Quiz True or False

| ESD Basics | |
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| 1) True | An example of Electro Static Discharge or ESD is the zap one sometimes feels after walking across carpeting and touching a metal doorknob. |
| 2) True | Static Charges are generated all the time when two surfaces contact and separate. Electrons move from one surface to another causing an imbalance. The surface with a deficiency of electrons has a positive charge and the surface with an excess of electrons has a negative change. |
| 3) False | ElectroStatic charges eventually will come into balance, but when this occurs suddenly an ESD or ElectroStatic Discharge event occurs. However, this event cannon melt electronic circuitry. |
| 4) True | A powerful example of an ESD event, creating lots of heat and light, is lightning. |
| 5) False | Conductors are a type of material where electrical current flows easily so can be grounded. Examples of conductors include plastics and Styrofoam cups. |
| 6) False | Insulators are a type of material where electrical current does not flow easily, that cannot be grounded. Examples of insulators include metals and people. |
| 7) False | A person walking across a carpeted floor can generate a voltage, but not greater than 100 volts of electrostatic charge on their body. |
| 8) True | Charges on a person frequently discharge, but for the person to feel the zap, a discharge must be about 3,000 volts. |
| 9) True | In manufacturing handling electronic components, ESD is the hidden enemy as there can easily be damaging ElectroStatic discharges that a person cannot detect. |
| 10) False | Passing an inspection test means that the ESD sensitive item has experienced a catastrophic ESD failure. |
| 11) False | Passing an inspection test means that the ESD sensitive item has not experienced a latent ESD defect. |
| 12) True | Although passing all inspections in the factory, ESD sensitive items having latent defects and failing in the field can be very expensive in warranty expense, field service repairs, and loss of customer satisfaction. |
| 13) True | Manufacturing ESD sensitive items without proper ESD control would be like a physician conducting surgery on you without following sterilization procedures. |
| 14) True | A person can be charged, and, as a conductor should be grounded at the ESD protective workstation. So, always be grounded when handling ESD sensitive items; always wear a wrist strap when seated at an ESD protected workstation. |
| 15) False | Make sure to always ground insulators. |
| 16) False | Even if it adversely effects the quality of the products you are working on, allow strangers into the work area and handle products as they please. |
| 17) False | If the air flow of the ionizer bothers you, it's OK to direct it away from the products you are working on. |
| 18) True | Regular plastic bags are very high charging insulators and should not be permitted in an ESD protected area. |
| 19) True | ESD Shielding Bags, if closed, will keep electrostatic charges on the exterior of the bag, and being dissipative, the charge will be removed when handled by a grounded person or placed upon a properly grounded ESD worksurface. |
| 20) True | Wrist Straps and ESD footwear should be tested at least daily, and while wearing them. You should understand and correct any failure; if not, you should notify your supervisor. |
| 21) False | ESD Foot Grounder grounding tabs should be cut off. |
| 22) True | ESD Smocks protect ESD sensitive items from charges on your clothing. These charges are not reliably removed via your wrist strap. Make sure to button up ESD Smock covering all clothing. |
| 23) False | The ESD Association understands that high charging personal items should be allowed in an ESD protected area, even if they might damage products. |
| 24) True | Only trained or escorted people should be allowed in an ESD protected area. |
| 25) True | Use shielded ESD packaging to store or transport ESD sensitive items outside an ESD protected area. |
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