



ESD CONTROL FOR IT AND ELECTRONICS SERVICE TECHNICIANS TRAINING CERTIFICATION TEST v.6 (DVD-55C)

This test consists of twenty-five multiple-choice questions. All questions are from the video: *ESD Control for IT and Electronics Service Technicians (DVD-55C)*.

Each question has only one *most* correct answer. Circle the letter corresponding to your selection for each test item. If you wish to change an answer, erase your choice completely.

You should read through the questions and answer those you are sure of first. After your first pass through the test, then go back and answer the questions that you were not sure of. If two answers appear to be correct, pick the answer that seems to be the most correct response.

When you are finished, check to make sure you have answered all of the questions. Turn in the test materials to the instructor.

The passing grade for this test is 70% (18 correct answers or better).

Good luck!



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Name _____ Date _____

1. Most people feel ESD above

- a. 2,000 volts
- b. 20,000 volts
- c. 20 volts
- d. 200 volts

2. When one item is charged positive and another item is charged negative

- a. the items will attract one another
- b. the items will repel one another
- c. the items remain static
- d. the items become grounded

3. Triboelectric charging involves

- a. a positive, negative or neutral charge
- b. the transfer of electrons between materials
- c. creating electrostatic charge by contact and separation of materials
- d. all of the above

4. A material that has more electrons than protons is

- a. triboelectrically charged
- b. positively charged
- c. negatively charged
- d. electrically over stressed

5. An example of a positively charged material is

- a. polyester
- b. nylon
- c. cotton
- d. rubber

6. An example of something that is partially conductive is

- a. a glass bottle
- b. a static dissipative mat
- c. an air ionizer
- d. a wire storage rack on rubber wheels

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- 7. The reason personal grounding helps control ESD is**
 - a. people work in a more controlled manner
 - b. people absorb charges before they reach the electronic assembly
 - c. charges are drained before they reach the ESD sensitive device
 - d. charges simply disappear

- 8. The first rule of proper handling is to**
 - a. minimize handling as much as possible
 - b. wear gloves when handling boards and components
 - c. minimize movements when handling boards and assemblies
 - d. make sure you slide components on a static dissipative surface

- 9. When handling components, make sure you**
 - a. pick up the component to move it
 - b. handle the component by the body rather than the leads
 - c. set the components down so that the leads touch a static dissipative surface
 - d. all of the above

- 10. Circuit board assemblies should be handled**
 - a. by the heat sinks or the headers
 - b. by the larger components that are securely soldered to lands
 - c. by the edges only
 - d. any of the above

- 11. The best protection for ESD sensitive devices is to store them**
 - a. in moisture tolerant packaging
 - b. in the original low moisture, static shielding packaging
 - c. in lead and glass boxes
 - d. in closed cardboard boxes

- 12. Static dissipative materials are used because**
 - a. they conduct electricity slowly enough to leave ESD sensitive devices undamaged
 - b. they have an excellent surface for sliding components
 - c. they have a stable surface for soldering
 - d. they are easy to clean

- 13. The surest way to control ESD from static producing materials is to**
 - a. utilize an air ionizer
 - b. operate with low humidity
 - c. spray staticide on the materials
 - d. completely eliminate the materials



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- 14. An example of a static producing material is**
- a. a plastic tape dispenser
 - b. bubble wrap
 - c. paper products
 - d. all of the above
- 15. Operating with high humidity tends to**
- a. make ESD problems worse
 - b. reduce charge build-up
 - c. make components sensitive to moisture
 - d. increase charge build-up
- 16. Regular housekeeping is important because**
- a. you are more productive when your work area is neat
 - b. co-workers will think more highly of you
 - c. clutter and dust can cause an ESD event
 - d. not all equipment is automated
- 17. An example of a static producing activity is**
- a. rubbing hands together
 - b. shifting your feet
 - c. combing hair
 - d. all of the above
- 18. When conductive smocks are not available, it is best to wear clothing made of**
- a. cotton
 - b. wool
 - c. polyester
 - d. silk
- 19. Loose clothing**
- a. is acceptable as long as the sleeves are rolled up
 - b. is a potential ESD issue
 - c. is a potential safety issue
 - d. both b and c
- 20. Wrist straps should be used during**
- a. operations where you use your wrist
 - b. all operations
 - c. seated operations
 - d. mobile operations

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21. Wrist straps should

- a. have some form of quick connect/disconnect
- b. be attached to a ground wire with a current limiting resistor
- c. be worn snugly against bare skin
- d. all of the above

22. Shoe grounders work because

- a. the elastic fits all shoes sizes
- b. the moisture from your sock aids in completing the connection from your body to ground
- c. your shoes should eventually touch the ground
- d. all of the above

23. Shaking your wrist during wrist strap testing

- a. checks for intermittent failures
- b. causes the pass light to flash
- c. is a nervous habit that should be stopped
- d. verifies that the wrist strap is secured to your wrist

24. When testing shoe grounders, you should

- a. place both feet on the metal plate
- b. never touch the metal plate with your feet
- c. place one foot at a time on the metal plate
- d. take off your wrist strap

25. An ESD safe workstation provides a means for connecting all work surfaces to

- a. an air ionizer
- b. a common grounding point
- c. a productive operator
- d. an ESD rack