



### **2.1.1.3 Fire Safety**

9. What should you do before beginning to repair the computer?
  
  
  
  
  
  
  
  
  
  
10. What is the "PASS" rule to operate a fire extinguisher?
  - a. P
  - b. A
  - c. S
  - d. S
  
  
  
  
  
  
  
  
  
  
11. There are various types of fire extinguishers available. What are the various types of fires they are used for?
  
  
  
  
  
  
  
  
  
  
12. What are the five safety procedures to follow in the event of a fire?

### **2.1.2.1 ESD and EMI**

13. What is ESD?
  
  
  
  
  
  
  
  
  
  
14. What is the minimum voltage of static electricity that a person can feel?
  
  
  
  
  
  
  
  
  
  
15. What is the voltage if pain or noise is involved?
  
  
  
  
  
  
  
  
  
  
16. How much static electricity is needed to damage a computer component?



25. What are some harmful types of AC power fluctuations?
  - a. Define Blackout:
  - b. Define Brownout:
  - c. Define Noise:
  - d. Define Spike:
  - e. Define Power Surge:

#### **2.1.2.3 Power Protection Devices**

26. What devices can protect data & computer equipment from power fluctuations?
  
27. What is a surge suppressor?
  
28. What is a UPS?
  
29. Are there special considerations when using a UPS?
  
30. What is a SPS?
  
31. How do a UPS and and SPS compare in operation?
  
32. Explain why printers should never be plugged into UPSs.

#### **2.1.3.1 Safety Data Sheet (SDS)**

33. What type of hazardous material is found in computer components?
  
34. Who should you contact for information about disposal procedures?

35. What is a Safety Data Sheet, or SDS?
36. What does OSHA stand for?
37. List some valuable information contained in the SDS:
38. What is the European organization that deals with these issues?

#### **2.1.3.2 Equipment Disposal**

39. What materials might be contained in batteries?
40. How should batteries be disposed of?
41. What materials are contained in monitors? How much lead is contained in a CRT monitor?
42. Is it a good idea to refill empty cartridges? Why or why not?
43. How should cleaning chemicals and solvents be disposed of?
44. What is a danger from aerosol cans?

### 2.2.1.1 General Tool Use

45. What are four main categories of hardware tools?

### 2.2.1.2 ESD Tools

46. What are the two common ESD tools?

### 2.2.1.3 Hardware Tools

47. Identify the parts shown in the figures:



### 2.2.1.4 Cable Tools

48. Identify the parts shown in the figures:



### 2.2.1.5 Cleaning Tools

49. List the cleaning tools shown in the figures:

### 2.2.1.6 Diagnostic Tools

50. What is a digital multimeter used for?

51. What is a loopback adapter used for?
52. What is the tone generator used for?
53. What is the Fluke WiFi Analyzer used for?
54. What is an external hard drive enclosure used for?

#### **2.2.2.1 Disk Management Tools**

55. What are six common disk management tools?

#### **2.2.2.2 Protection Software Tools**

56. What are some commonly used software tools?
57. What is Windows Action Center?
58. What is Windows Defender?
59. What is Windows Firewall?

### **2.2.2.3 Lab - Diagnostic Software**

#### **2.2.3.1 Reference Tools**

60. Why is it important to document all repairs and other problems?
61. What are three useful personal reference tools?
62. What are six useful Internet reference tools?

#### **2.2.3.2 Miscellaneous Tools**

63. Why should you always bring a working computer with you for field repairs?
64. What are four of the 10 field replaceable units (FRUs) to include in a toolkit?

#### **2.2.4.1 Antistatic Wrist Strap**

65. What is the purpose of the antistatic wrist strap?
66. When should you NOT wear an antistatic wrist strap?

#### **2.2.4.2 Antistatic Mat**

67. How is an antistatic mat used?
68. What is the safest way to handle components?

### 2.2.4.3 Hand Tools

69. How can you remember which way to turn the screwdriver?
70. Why should you avoid using magnetized tools inside a computer?
71. Why should you not use a pencil inside a computer case?

### 2.2.4.4 Lab: Using a Multimeter and a Power Supply Tester

### 2.2.4.5 Cleaning Materials

72. Why is dust a problem?
73. What should you do before cleaning any device?
74. How should you clean the case & monitor?
75. How should you never clean an LCD screen?
76. How should you clean dusty components?
77. How should you hold the can of air and why?
78. Why is it bad to allow the fan blades to spin from the force of the compressed air?

79. How should you clean component contacts?
80. Why can't you use rubbing alcohol?
81. How should you clean a keyboard?
82. Why should you *NEVER use* a standard vacuum cleaner inside a computer case?

#### **2.2.4.7 Lab – Computer Disassembly**