Info Section Troubleshooting

1. Which two laws are necessary to properly troubleshoot using a voltmeter?
2. What are the advantages of a digital voltmeter over an analog voltmeter?
3. What value of voltage do most voltmeters measure?
4. How do you calculate the internal resistance of an analog voltmeter?
5. What is a non-linear scale?
6. Do most digital voltmeters have a zero adjusting screw?
7. Why is there a needle locking device on most clamp-on ammeters?
8. You should never move the range switch on a clamp-on ammeter when it is around a current carrying conductor. True or False?
9. What is a VOM?
10. What is a DMM?
11. What are two reasons for moving the selector switch off the ohms scale when storing a multimeter?
12. What is the proper name for a megger?
13. How will the reading act when testing a long power cable or large motor to ground with a megger?
14. How long should you discharge a long power cable after a megger test?
15. What are infrared scanners used for?
16. What are two possible causes of a rise in temperature for a piece of equipment?
17. What is a Hipot Test?
18. How is a motor rotation indicator connected to a motor?
19. How is a phase sequence indicator used?
20. What is the difference in operation of a capacitor meter and a capacitor analyzer?
21. How will an open and a short in a capacitor show up on an ohmmeter?
22. What device is used to locate the source conductor for a circuit without de-energizing the circuit?

23. What information is available from testing with a logic probe?

24. What is one advantage of non-contact tachometers?

25. How does a stroboscopic tachometer work?

26. How does a photo tachometer work?

27. What are the two values on the vertical axis and the horizontal axis when measuring voltage with an oscilloscope?

28. Which control on an oscilloscope will set the time of the sweep so you can get at least one complete sine wave in the window?

29. What is the purpose of voltage-sensing attenuation probes with an oscilloscope?

30. What is the purpose of desoldering braid?

31. When installing a temporary (clip) jumper in a system to be tested, it should be neatly installed to blend in with the other wiring. True or False?

32. When a temporary jumper must be left in a system for a time, what is the proper procedure to maintain safety?

33. What are patch cords and extension cables used for?

34. What is the purpose of extender boards?

35. What is the purpose of freeze sprays?

36. What is the main advantage of IC monitor clips?

37. What are some alternate power sources that must be considered when isolating equipment for maintenance or repair?

38. What precaution should be taken when working around thermal systems?

39. What precautions must be taken before working on hydraulic or pneumatic systems?

40. What precautions should be taken when working on live equipment?
41. What is your most efficient tool when troubleshooting a piece of equipment?

42. What is the best time to get familiar with the operating sequence of a machine?

43. What is the best source of factual information for a particular machine?

44. What is the advantage of keeping good records of changes that may have taken place with the machine or the environment?

45. What is the first check that should be made in a no-go situation for a piece of equipment?

46. What are the most difficult problems to diagnose and repair?

47. What is the dividing method of locating a fault?

48. Should more than one person take the lead in troubleshooting a piece of equipment?

49. What is the meaning of the term “thinking beyond the fix”?

50. What should be done after each change is made in a system?

51. What are some advantages and disadvantages of substitute troubleshooting?

52. Why is it important to document any changes to the equipment?