Module 29 Unit 5 High-voltage

1. What is the purpose of conductor insulation?
2. What factors cause insulation to deteriorate over time?
3. How is a high-voltage conductor compared to a capacitor?
4. How does an increase in voltage affect heat losses in high-voltage conductors?
5. What is dielectric absorption?
6. What is the phase angle between voltage and current when current flows in insulation?
7. What is the only known perfect insulator?
8. What instrument is typically used to test insulation resistance in high-voltage cables?
9. What component is often installed on high-voltage insulation tester for safety?
10. What are three instances where sparking can occur when testing cables?
11. How should the reading react when testing a high-voltage cable with a meggar?
12. When using a high-voltage meggar to test a conductor, what precaution should be taken when grounding the conductor after the test?
13. What is a hypot test?
14. Which type of voltage is used for hypot testing? Why?
15. Which hypot test will give indication as to how close the insulation came to breaking down?
16. What value are the readings on a hypot tester? (volts, amps, ohms, etc)
17. What are the three types of current in a DC hypot test?
18. Which type of current starts off at a high value and drops off completely as the test is conducted?

19. What three steps must be taken before performing a current-versus-voltage test?

20. What is the minimum time that should be left between each step of a current-versus-voltage test?

21. How long should the conductor remain grounded after a current-versus-voltage test?

22. What precautions should be taken with the area where the ends of cables being tested are located?

23. Why should records of insulation tests be kept?