

TI21C - Pre-Instructional Survey

Name _____ Date _____

1. For a ground to be an effective it must have a low resistive path to earth (or the conductive surface used as earth).
True False
2. Lightning is a form of ESD.
True False
3. If the primary source to a single phase transformer is above 150 V how must the secondary side be grounded
 - A. it is not supposed to be grounded
 - B. to the service ground
 - C. through a spark gap
 - D. by DCS
4. Electrical current will only flow through a completed circuit.
True False
5. Earth ground connections are used in order to cause a circuit breaker to instantaneously trip in the event of an unintentional ground fault.
True False
6. A grounding conductor normally carries current.
True False
7. A grounded conductor normally carries current.
True False
8. The neutral conductor is not intentionally the system grounding conductor.
True False
9. Transient noise is permanent in a DC system.
True False
10. Harmonics appear as a multiple of the fundamental sine wave.
True False

11. In an AC circuit, harmonics can cause the _____ to overheat.
- A. sine wave
 - B. phase line
 - C. neutral conductor
 - D. grounding conductor
 - E. both B and C
12. _____ is as unwanted component of a signal or variable.
- A. Frequency
 - B. Noise
 - C. DC signal
 - D. A coupler
13. Noise is random variations of voltage, current, or data.
True False
14. Which of the following is one of the causes of noise in instrumentation?
- A. Shielding
 - B. Frequency
 - C. Calibration
 - D. Ground loop
15. Shielding should always be grounded on both ends of the same cable.
True False
16. Current does not flow in a ground loop.
True False
17. One cause of interference through capacitive coupling is locating the signal leads too close to the interfering source
True False
18. Radio transmitters emit electromagnetic radiation.
True False
19. Which of the following is a type of shielded cable?
- A. Coated Cable
 - B. Contact Cable
 - C. Shielded Twisted Pair
 - D. All of the above

20. You can usually reduce noise in signal cables by changing their physical location.
True False

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1. True
2. True
3. B
4. True
5. True
6. False
7. True
8. True
9. False
10. True
11. Neutral conductor
12. Noise
13. True
14. Ground Loop
15. False
16. False
17. True
18. True
19. C
20. True