Chapter 14 Test: Line Conductors

Instructor: Drew Lindsey Name:

Class: ELT 211 Date:

Carefully read each question, and circle the letter next to the correct answer.

1. Which is not a type of copper wire that is in use?
   a. Hard drawn
   b. Soft drawn
   c. Medium hard drawn
   d. ACSR

2. Soft drawn wire is used for what purpose?
   a. Ground wire
   b. Overhead lines
   c. Guy wires
   d. Secondary wire

3. What is the conductivity of aluminum wire compared to copper wire of the same size?
   a. About 3/4
   b. About 2/3
   c. About 1/2
   d. About 1/3

4. What is the weight of aluminum wire compared to copper wire of the same size?
    a. About 3/4
    b. About 2/3
    c. About 1/2
    d. About 1/3

5. What is ACSR conductor?
    a. Aluminum coated steel conductor
    b. Copper coated steel conductor
    c. Steel reinforced aluminum conductor
    d. Steel reinforced copper conductor

6. What are galvanized steel conductors typically used for?
    a. Guy wires
    b. Line conductor
    c. Static wire
    d. Both a and c

7. What is copperweld conductor?
    a. Copper coated aluminum wire
    b. Copper coated steel wire
    c. Steel coated copper wire
    d. Solid copper wire

8. What are the two main classifications of conductor?
    a. Aluminum and copper
    b. Solid and stranded
    c. Underground and overhead
    d. Neutral and phase

9. How should conductors that are energized at high voltages, and have a triple braided weatherproof cotton coating be treated?
    a. As deenergized
    b. As energized
    c. They are workable with leather gloves
    d. As a health hazard

10. Of the following wire gauges, which conductor would be largest?
    a. 10
    b. 4
    c. 0
    d. 0000

11. What is the size of one circular mil?
    a. 1/10 of an inch
    b. 1/100 of an inch
    c. 1/1000 of an inch
    d. 1/1000000 of an inch

12. What is the most important factor in determining the correct size of conductor to use in a specific application?
    a. Voltage
    b. Resistance
    c. Current
    d. Price

13. What other factors determine conductor selection?
    a. Power factor
    b. Length of span
    c. Length of line
    d. All of the above

14. When selecting a conductor for primary applications, what must the conductor be able to support besides its own weight?
    a. Ice
    b. Sleet
    c. Wind
    d. All of the above

15. The U.S. government has divided the country into 3 different designations for the amount of ice, sleet, and wind expected in each of these areas. What is the name of these areas?
    a. Weather zones
    b. Precipitation areas
    c. Lightning designations
    d. Loading districts

16. What is aeolian vibration?
    a. Vibration caused by traffic
    b. Vibration caused by wind
    c. Vibration caused by seismic shifting
    d. Vibration caused by radio waves

17. What does ACCC stand for when representing a type of conductor?
    a. Aluminum conductor, copper core
    b. Aluminum conductor, common core
    c. Aluminum conductor, composite core
    d. Aluminum conductor, concentric core

18. Vibration dampeners are installed on conductors for what reason?
    a. For higher visibility of the conductor
    b. To control vibration
    c. To prevent conductor damage
    d. Both b and c

19. When bundled conductors are utilized on transmission circuits, what hardware is used in conjunction?
    a. Vibration dampeners
    b. Conductor spacers
    c. Line hose
    d. Fiber optic ground wire

20. Overhead ground and phase wires that are fabricated with optical fibers as an integral part of the conductor are called what?
    a. Fiber optic cables
    b. Copperweld
    c. ACSR
    d. Both b and c