Underground residential distribution (URD) systems

Instructor: Drew Lindsey

Name: _______________________________________

Class: ELT 201________ Date: ______________________

Test # ______________________ Results: ______________________

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

1. What is the name of the piece of hardware in this picture?

   a. elbow arrestor
   b. primary bushing
   c. load break elbow
   d. secondary bushing

2. To help protect URD cables during back filling, some utilities fill the areas under and above the cables with ____.

   a. Concrete
   b. Sand
   c. Insulating foam
   d. Gravel
3. A typical URD system provides _____.
   a. Single-phase, three wire secondary service to residential customers
   b. Three-phase, three wire secondary service to commercial customers
   c. Primary distribution service to rural subdivisions
   d. Two-phase service to industrial and residential businesses.

4. A URD installation in which multiple utilities such as electric, gas, cable TV, and telephone lines are buried in the same trench is known as a _____.
   a. Shallow, or bored trench
   b. Common, or joint trench
   c. Dependent, or narrow trench
   d. Radial, or plowed trench

5. A type of URD system in which both ends of the system are connected to the same phase of an overhead primary is called a _____.
   a. Radial-feed system
   b. Double feed system
   c. Cross feed system
   d. Loop-feed system

6. The cable in this picture can be best described as?
   a. Concentric metallic primary cable
   b. Non-stranded primary cable
   c. Quadruplex secondary cable
   d. Triplex secondary cable
7. The basic purpose of a fault indicator in a URD system is to sense fault current and display some type of indication that _____.
   a. Reduces trouble shooting time and effort
   b. De-energizes the entire loop
   c. Re-energizes the system without the need for repair
   d. Pulses the system with high voltage

8. Lightning protection for a URD system is most likely to come in the form of _____.
   a. Lightning rods
   b. Bayonet fuses
   c. Surge arrestors
   d. Capacitance discharge units

9. If an elbow surge arrestor is being added to a two-bushing transformer located at the end of a radial feed URD system, the best place to install the surge arrestor is in the ______.
   a. Tap selector opening
   b. Bayonet fuse holder
   c. Elbow connection at either secondary
   d. Unoccupied bushing of the transformer

10. A dual-rated cable connector is most likely to be stamped or marked with _____.
    a. TWO2
    b. THHN
    c. ALCU
    d. ACLU

11. In a typical electric meter, two secondary cables from a pad-mounted transformer enter the meter and are terminated on the ______.
    a. Line side
    b. Load side
    c. Load break
    d. Switch gear
12. Before a termination is applied to the end of a secondary URD cable that has an aluminum conductor, the conductor should be wire brushed and coated with ______.
   a. An insulating gel
   b. An antioxidant
   c. Heat shrink
   d. Rubberized tape