1. With regards to transformer losses, in general, a heavily loaded transformer has lower losses, and therefore has __________, than when it is lightly loaded.
   a. lower life cycle cost
   b. longer life expectancy
   c. higher life cycle cost
   d. shorter life expectancy

2. Considering line regulation, the voltage drop for primary lines shall not exceed:
   a. 5 percent
   b. 3 percent
   c. 10 percent
   d. 2 percent

3. With respect to cable types, lead-sheathed cable is generally used for submarine (underwater) installations and is usually:
   a. carbon-composite
   b. clad in poly-vinyl chloride
   c. annealed-magnesium
   d. armored

4. In determining the strength requirements and the adequate physical and structural requirements for overhead system support poles, the designer should refer to _______________________________ and ANSI C2.
   a. ASTM-E2018
   b. Fink and Beaty, Standard Handbook for Electrical Engineers
   c. National Electrical Institute Wiring and Distribution Reference Volume 2

5. Considering hardware for overhead systems, in locations sensitive to electromagnetic interference, primary lines should be installed:
   a. overhead
   b. in parallel
   c. underground
   d. inside lead pipes
6. Capacitors raise voltage levels by reducing the reactive line losses associated with ____________ between the capacitor installation and the power supply.
   a. resistance
   b. electro-magnetic interference
   c. reactive current flow
   d. current distortion

7. Where an underwater cable crossing is subjected to flow or tidal currents, _______ are usually required to prevent excessive drifting or shifting of the cable along the bottom.
   a. trenches
   b. conduits
   c. stand-offs
   d. anchors

8. Regarding underground cable insulation advantages, _____________ are thermosetting, solid dielectric compounds with excellent electrical insulation properties, good chemical resistance and physical strength characteristics, and both remain flexible at low temperatures.
   a. both XLP and EPR
   b. PVC and XLP
   c. both butyl rubber and EPR
   d. cambric and silicone-rubber

9. A _____________ substation is a unit substation in which the low-voltage section is above 1000 volts.
   a. load center secondary
   b. secondary unit rated
   c. articulated unit
   d. primary unit rated

10. With regards to transformers, primary unit substations require less land space, are visually less objectionable, and because of the integrated transformer to secondary connection, _________ than separate substation transformers and secondary protective devices.
    a. are less reliable.
    b. are more reliable
    c. are more complicated
    d. are more difficult to install