1. to ensure that each ring is complete without interconnections

2. polarity / ($R^1 + R^2$)

3. a) verify supply is isolated
   b) disconnect any voltage sensitive equipment
   c) all current using equipment disconnected
   d) all local switched closed

4. possibility of shock from exposed and extraneous conductive parts

5. a) insulation
   b) barriers
   c) enclosures
   d) placing out of reach
   e) obstacles
   f) limitation of discharge energy
   g) SELV

6. a) EEBADOS
   b) earth – free local equipotential bonding
   c) class II installation
   d) non – conducting location
   e) limitation of discharge energy
   f) SELV

7. a) main electrode under test
   b) potential electrode (temporary)
   c) current electrode (temporary)

8. a) external impedance Ze
   b) prospective fault current
   c) earthing arrangements
   d) maximum demand
   e) rating of overcurrent device at the origin of the installation

9. a) Zs at distribution boards other than at origin
   b) prospective fault current
   c) nominal voltage

10. a) insulation resistance decreases
    b) insulation resistance increases
    c) insulation resistance decreases

11. **Uo** – voltage to earth for TN systems
    Ia - current causing operation of overcurrent device
    Zs - impedance measures in ohms at the point in the circuit, which is furthest most the origin of the supply

12. a) to avoid parallel paths
b) low – resistance ohmmeter
c) less than 0.05Ω (50mΩ)

13. a) to allow for increase in resistance with temperature rise
b) allows for increase in resistance from 20ºC to 70ºC

14. a) under phase to earth fault conditions the final value of impedance Zs may be greater than those tabulated in Tables 41
b) extended disconnection time resulting in the possibility of shock and or fire.