

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 Z_e
 - b) prospective fault current
 - c) earthing arrangements
 - d) maximum demand
 - e) rating of overcurrent device at the origin of the installation
9.
 - a) Z_s 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.

U_o – voltage to earth for TN systems
 I_a - current causing operation of overcurrent device
 Z_s - 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 ($50\text{m}\Omega$)

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

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