

Q1 - Kohlrausch's law states that at

- A.** finite dilution, each ion makes a definite contribution to the equivalent conductance of an electrolyte, whatever be the nature of the other ion of the electrolyte.
- B.** infinite dilution, each ion makes a definite contribution to the equivalent conductance of an electrolyte depending on the nature of the other ion of the electrolyte.
- C.** infinite dilution, each ion makes a definite contribution to the conductance of an electrolyte whatever be the nature of the other ions of the electrolyte.
- D.** infinite dilution, each ion makes a definite contribution to the equivalent conductance of an electrolyte. whatever be the nature of the other of the electrolyte.

Solution:

The correct answer is Option D.

According to Kohlrausch's law "at infinite dilution when the dissociation is complete, each ion makes a definite contribution towards equivalent conductivity of the electrolyte irrespective of the nature of the order ion with which it is associated.

Q-2 Kohlrausch's Law is applicable:

- A.** to aqueous solution of strong electrolytes
- B.** applicable to electrolytes dissolved in a solvent of low polarity only
- C.** to electrolytes at temperature above room temperature.
- D.** to electrolytic solutions at infinite dilution

Solution:

The correct answer is Option D.

Kohlrausch's law states that the equivalent conductivity of an electrolyte at infinite dilution is equal to the sum of the conductance of the anions and cations. When the concentration of the electrolyte approaches zero, the molar conductivity is known as limiting molar conductivity, Λ_m°