Yakeen NEET 2.0 2026

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Electrochemistry

DPP: 6

Q1 Electrolytes conducts electricity due to
(A) flow of ions
(B) flow of electrons
(C) both
(D) none

Q2 Cell constant has the unit
(A) cm
(B) cm^{-1}
(C) cm^2
(D) $cmsec^{-1}$

Q3 Correct expression for conductance of an electrolyte whose cell constant is ' a ' resistivity ' X ' is
(A) $\frac{2}{Xa}$
(B) $\frac{1}{X}$
(C) $\frac{a}{X}$
(D) $\frac{1}{X \cdot a}$

Q4 The resistance of 0.05 N solution of an electrolyte was found to be 420ohm at 298 K. Its conductance is
(A) $2.4 \times 10^{-3} ohm^{-1}$
(B) $8.4 \times 10^{-3} ohm^{-1}$
(C) $5.6 \times 10^{-4} ohm^{-1}$
(D) $7.2 \times 10^{-3} ohm^{-1}$

Q5 Cell constant of an electrolytic solution is $0.5 \ cm^{-1}$ and resistivity 54ohm $- cm$. Find conductance of the electrolytic solution.
(A) $\frac{1}{36}$

(B) $\frac{1}{56}$
(C) $\frac{1}{97}$
(D) $\frac{1}{27}$

Q6 The specific conductance of a solution is 0.3568 $ohm^{-1} \ cm^{-1}$. When placed in a cell the conductance is $0.0268 \ ohm^{-1}$. The cell constant is
(A) $1.331 \ cm^{-1}$
(B) $13.31 \ cm^{-1}$
(C) $0.665 \ cm^{-1}$
(D) $6.65 \ cm^{-1}$

Q7 A conductivity cell has two platinum electrodes of $1.2 \ cm^2$ area separated by a distance of 0.8 cm. Cell constant is
(A) $0.76 \ cm^{-1}$
(B) $1.5 \ cm^{-1}$
(C) $0.96 \ cm^{-1}$
(D) $0.66 \ cm^{-1}$

Q8 Conductance (Unit: siemen's S) is directly proportional to the area of the vessel and the concentration of the solution in it and is inversely proportional to the length of vessel, then the unit of constant of proportionality is
(A) $S \ m \ mol^{-1}$
(B) $10^{-3} S \ m^2 \ mol^{-1}$
(C) $S^{-2} \ m^2 \ mol$
(D) $S^2 \ m^2 \ mol^{-2}$

Q9

Resistance of a decimolar solution between two electrodes 0.02 meter apart and $0.004\ \mathrm{m}^2$ in area was found to be 50 ohm. Specific conductance (κ) is:

(A) $0.1\,\mathrm{Sm}^{-1}$

(B) $1\ \mathrm{S\ m}^{-1}$

(C) $10\ \mathrm{S\ m}^{-1}$

(D) $4 \times 10^{-4}\,\mathrm{Sm}^{-1}$

Q10 Resistance of $0.1\,\mathrm{M\ KCl}$ solution in a conductance cell is $300\ \mathrm{ohm}$ and conductivity is $0.013\ \mathrm{S\ cm}^{-1}$. The value of cell constant is

(A) $3.9\ \mathrm{cm}^{-1}$

(B) $39\ \mathrm{m}^{-1}$

(C) $3.9\ \mathrm{m}^{-1}$

(D) None of these

Answer Key

Q1	(A)		Q6	(B)
Q2	(B)		Q7	(D)
Q3	(D)		Q8	(B)
Q4	(A)		Q9	(A)
Q5	(D)		Q10	(A)

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