

Yakeen NEET 2.0 2026

Physical Chemistry By Amit Mahajan Sir

DPP: 2

Electrochemistry

- Q1** When equilibrium is reached, the potential difference between the two electrodes is
 (A) < 1 (B) > 1
 (C) 0 (D) None
- Q2** In the construction of a salt bridge, saturated solution of KNO_3 is used because:
 (A) Velocity of K^+ & NO_3^- are same.
 (B) Velocity of NO_3^- is greater than that of K^+ .
 (C) Velocity of K^+ is greater than that of NO_3^- .
 (D) KNO_3 is highly soluble in water.
- Q3** In an electrochemical cell, the electrode having a higher reduction potential will act as:
 (A) Salt (B) Electrolyte
 (C) Anode (D) Cathode
- Q4** A cell is prepared by dipping a copper rod in 1M CuSO_4 solution and an iron rod in 2M FeSO_4 solution. What are the cathode & anode respectively?
 (A) Cathode \rightarrow Iron ; Anode \rightarrow Copper
 (B) Cathode \rightarrow Copper ; Anode \rightarrow Iron
 (C) Cathode \rightarrow Iron; Anode \rightarrow Iron
 (D) Cathode \rightarrow Copper; Anode \rightarrow Copper
- Q5** Daniell cell is represented as
 (A) $\text{Zn} \mid \text{Zn}^{+2}(\text{aq}) \parallel \text{Cu}^{+2}(\text{aq}) \mid \text{Cu}$
 (B) $\text{Cu} \mid \text{Cu}^{+2}(\text{aq}) \parallel \text{Zn}^{+2}(\text{aq}) \mid \text{Zn}$
 (C) $\text{Zn} \mid \text{Zn}^{+2}(\text{aq}) \parallel \text{Zn}^{+2}(\text{aq}) \mid \text{Zn}$
 (D) $\text{Cu} \mid \text{Cu}^{+2}(\text{aq}) \parallel \text{Cu}^{+2}(\text{aq}) \mid \text{Cu}$
- Q6** The equilibrium constant for a cell reaction:
 $\text{Cu}(\text{s}) + 2\text{Ag}^+(\text{aq}) \rightarrow \text{Cu}^{+2}(\text{aq}) + 2\text{Ag}(\text{s})$
 is 4×10^{16} . Find E_{cell}° for the cell reaction.
 (A) 0.63 V (B) 0.49 V
 (C) 1.23 V (D) 3.24 V
- Q7** The standard electrode potential of zinc ions is 0.76 V. What will be the potential of a 2M solution at 300 K ?
 (A) 0.83 V
 (B) 0.76 V
 (C) 0.23 V
 (D) 0.98 V
- Q8** ΔG° for the reaction
 $\text{Cu}^{+2} + \text{Fe} \rightarrow \text{Fe}^{+2} + \text{Cu}$
 $\left[E_{\text{Cu}^{+2}/\text{Cu}}^{\circ} = 0.34 \text{ V}, E_{\text{Fe}^{+2}/\text{Fe}}^{\circ} = 0.44 \text{ V} \right]$
 (A) 19.3 kJ
 (B) 180.8 kJ
 (C) 150.5 kJ
 (D) 28.5 kJ
- Q9** Equilibrium constant for the reaction at equilibrium will be:
 $\text{Cu}^{+2} + \text{Fe} \rightleftharpoons \text{Fe}^{+2} + \text{Cu}$
 $E_{\text{Cu}^{+2}/\text{Cu}}^{\circ} = 0.54 \text{ V} \quad E_{\text{Fe}^{+2}/\text{Fe}}^{\circ} = 0.44 \text{ V}$
 (A) 3442 (B) 1450
 (C) 3926 (D) 2422
- Q10** The potential of single electrode depends upon
 (A) The nature of the electrode
 (B) Temperature
 (C) Concentration of the ion with respect to which it is reversible
 (D) All of the above
- Q11** The relationship between standard reduction potential of a cell and equilibrium constant is



shown by

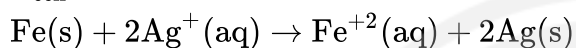
- (A) $E_{\text{cell}}^{\circ} = \frac{n}{0.059} \log K_C$
 (B) $E_{\text{cell}}^{\circ} = \frac{0.059}{n} \log K_C$
 (C) $E_{\text{cell}}^{\circ} = 0.059n \log K_C$
 (D) $E_{\text{cell}}^{\circ} = \frac{\log K_C}{n}$

Q12 If E_{cell}° for a given reaction has a positive value, then which of the following is correct?

- (A) $\Delta G^{\circ} > 0$, $K_C < 1$
 (B) $\Delta G^{\circ} > 0$, $K_C > 1$
 (C) $\Delta G^{\circ} < 0$, $K_C > 1$
 (D) $\Delta G^{\circ} < 0$, $K_C < 1$

Q13 The equilibrium constant of the reaction if

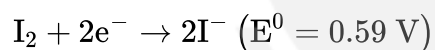
$$E_{\text{cell}}^{\circ} = 0.4 \text{ V}$$



at 298 K is

- (A) 2.5×10^{12}
 (B) 3.5×10^{13}
 (C) 1.5×10^{12}
 (D) 4.5×10^{15}

Q14 Find equilibrium constant when the reaction reaches equilibrium



- (A) 10^{20} (B) 10^{25}
 (C) 10^{30} (D) 10^{15}



Answer Key

Q1 (C)

Q2 (A)

Q3 (D)

Q4 (B)

Q5 (A)

Q6 (B)

Q7 (B)

Q8 (A)

Q9 (D)

Q10 (D)

Q11 (B)

Q12 (C)

Q13 (B)

Q14 (A)



[Master NCERT with PW Books APP](#)

