Chapter 5
Electrochemistry

1. On which factor does the conductance of electrolytic solutions depend?
(A) Temperature
(B) Number of charge carriers
(C) Dielectric constant of the solute
(D) Pressure

2. Dilution means
(A) Increase in amount of solvent
(B) to make thinner or more liquid
(C) addition of water
(D) Increase in solute

3. The composition of standard hydrogen electrode
(A) Hygrogen gas
(B) Copper electrode
(C) H+ ions
(D) Platinum electrode

4. position of equilibrium reaction is influenced by
(A) Changes in concentration
(B) Pressure
(C) Dielectric constant
(D) Temperature

5. During electrophoresis, the mass of a substance produced is proportional to
(A) Voltage provided
(B) Time of constant current
(C) Strength of current
(D) Acceleration requires

6. At equilibrium
(A) Cell potential 'E cell' becomes zero
(B) Equilibrium constant becomes equal to electrode potential
(C) E cathode becomes equal to E anode
(D) Equilibrium constant become zero

7. Cell reaction is spontaneous when
(A) E^{θ}Red is positive
(B) $\Delta H < 0$
(C) ΔG^{θ} is positive
(D) $\Delta S > 0$

8. Which among this are exothermic reactions?

(A) Combustion reaction
(B) Neutralization reaction
(C) Thermite reaction
(D) Evaporating liquid water

9. Which of the following are TRUE for a steady flow system?
(A) mass entering = mass leaving
(B) the total energy content of a control volume remains constant
(C) mass does not enter or leave the system
(D) the amount of energy entering a control volume in all forms

10. Which of the following are TRUE?
(A) Q for reversible > Q for irreversible
(B) Q for reversible < Q for irreversible
(C) work for reversible < work for irreversible
(D) work for reversible > work for irreversible

Answer

1. **(A), (B), (D)**
2. **(A), (B), (C)**
3. **(A), (C), (D)**
4. **(A), (B), (D)**
5. **(B), (C)**
6. **(A), (C)**
7. **(B), (C), (D)**
8. **(A), (B) (C)**
9. **(A), (B), (D)**
10. **(A), (D)**