Yakeen NEET 2.0 2026

Physical Chemistry

Electrochemistry

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DPP: 4

Q1 Which of the following statements is true for fuel cells?
(A) They are more efficient.
(B) They are free from pollution.
(C) They function till reactants are active.
(D) All of these

Q2 Rusting of Iron is catalyzed by which of the following?
(A) Fe
(B) $\mathrm{O_2}$
(C) Zn
(D) $\mathrm{H^+}$

Q3 In $\mathrm{H_2-O_2}$ fuel cell the reaction occurring at cathode is
(A) $2\mathrm{H_2O} + \mathrm{O_2} + 4\mathrm{e^-} \rightarrow 4\mathrm{OH^-}$
(B) $2\mathrm{H_2} + \mathrm{O_2} \rightarrow 2\mathrm{H_2O}(l)$
(C) $\mathrm{H^+} + \mathrm{OH^-} \rightarrow \mathrm{H_2O}$
(D) $\mathrm{H^+} + 1\mathrm{e^-} \rightarrow \frac{1}{2}\mathrm{H_2}$

Q4 Galvanization is applying a coating of
(A) Cr
(B) Cu
(C) Zn
(D) Pb

Q5 The net fuel cells reaction is
(A) $2\mathrm{H_2O} + \mathrm{CH_4} \rightarrow \mathrm{CO_2} + 8\mathrm{H^+} + 8\mathrm{e^-}$
(B) $4\mathrm{e^-} + 4\mathrm{H^+} + \mathrm{O_2} \rightarrow 2\mathrm{H_2O}$
(C) $2\mathrm{H_2} + \mathrm{O_2} \rightarrow 2\mathrm{H_2O}(l)$
(D) None

Q6 Chemical energy is converted to _____ energy by a fuel cell.
(A) Solar (B) Electrical
(C) Potential (D) Mechanical

Q7 In hydrogen - oxygen fuel cell electrodes used are
(A) Zn
(B) Cu
(C) Pt
(D) None

Q8 Which of the following converts energy from the combustion of fuel directly to the electrical energy?
(A) $\mathrm{Ni-Cd}$ Cell
(B) Dynamo
(C) Fuel cell
(D) Electrolytic cell

Q9 Cathodic reaction in corrosion
(A) $\mathrm{Fe_{(s)} \rightarrow Fe^{+2} + 2e^-}$
(B) $\mathrm{O_2 + 4H^+ + 4e^- \rightarrow 2H_2O}$
(C) $\mathrm{2Fe_{(s)} + O_2 + 4H^+ \rightarrow 2Fe^{+2} + 2H_2O}$
(D) None

Q10 The net reaction in corrosion
(A) $\mathrm{2Fe_{(s)} + O_{2(\,g)} + 4H^+_{aq} \rightarrow 2Fe^{+2}_{aq} + 2H_2O_{(l)}}$
(B) $\mathrm{Fe \rightarrow Fe^{+2} + 2e^-}$
(C) $\mathrm{O_2 + 4H^+ + 4e^- \rightarrow 2H_2O_{(I)}}$
(D) None

Answer Key

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