Yakeen NEET 2.0 2026

Physical Chemistry By Amit Mahajan Sir Redox Reaction

DPP: 1

- **Q1** Which of the following is correct?
 - (A) Oxidation = addition of oxygen
 - (B) Oxidation = addition of electronegative element
 - (C) Oxidation = removal of hydrogen
 - (D) Oxidation = removal of electronegative element
 - (A) ABC
- (B) BCD
- (C) ACD
- (D) ABCD
- Q2 Which one of the following does not ocour during the reduction?
 - (A) Removal of oxygen
 - (B) Removal of electronegative element from substance
 - (C) Removal of electropositive element from substance
 - (D) Addition of hydrogen
- Q3 According to classical concept, oxidation involves-
 - (A) Addition of oxygen
 - (B) Addition of electronegative element
 - (C) Removal of either hydrogen or some electropositive element
 - (D) All of these
- Q4 Match the List-I with List-II.

	List-I		List-II		
A.	$2Mg + O_2 \rightarrow 2MgO$	P.	Removal of hydrogen		
В.	$Mg + Cl_2 \rightarrow MgCl_2$	Q.	Removal of electropositive element		
C.	$\begin{array}{c} 2H_2S+O_2\rightarrow 2S+\\ 2H_2O \end{array}$	R.	Addition of oxygen		

- D. $|2K1 + H_2O + O_3 \rightarrow |S|$ Addition of electronegative 2KOH + I, + O, element, chlorine
- (A) A-(Q); B-(P); C-(S); D-(R)
- (B) A-(R); B-(S); C-(P); D-(Q)
- (C) A-(S); B-(P); C-(R); D-(Q)
- (D) A-(P); B-(R); C-(S); D-(Q)
- Q5 Oxidation is defined as:
 - (A) Gain of electrons
 - (B) Decrease in positive valency
 - (C) Loss of electrons
 - (D) Addition of electropositive element
- Q6 Reduction is defined as
 - (A) Increase in positive valency
 - (B) Gain of electrons
 - (C) Loss of protons
 - (D) Decrease in negative valency
- Q7 A redox reaction is
 - (A) proton transfer reaction
 - (B) ion combination reaction
 - (C) a reaction in solution
 - (D) electron transfer reaction
- **Q8** Which of the following involves the reduction of copper?
 - (A) $\mathrm{Cu(s)} + \frac{1}{2}\mathrm{O_2(g)} \to \mathrm{CuO(s)}$
 - (B) $\mathrm{Cu}^{2+}(\mathrm{aq}) + 2\mathrm{I}^{-}(\mathrm{aq}) o 2\,\mathrm{CuI}(\mathrm{aq})$
 - (C) $\operatorname{CuCl}_2(s) + 2\operatorname{F}^-(\operatorname{aq}) \to \operatorname{CuF}_2$ $+ \operatorname{Cl}_2(\mathbf{g})$
 - (D) $CuO(s) + H_2O(l) \rightarrow Cu(OH)_2(aq)$
- Q9 When iron is rusted, it is

- (A) oxidized
- (B) reduced
- (C) evaporated
- (D) decomposed
- **Q10** How many electrons should X_2H_4 liberate so that in the new compound, X shows oxidation number of -1/2?

[E.N. of X. > H]

(A) 10

(B) 4

(C) 3

- (D) 2
- Q11 In which of the following reactions, the underlined substance has been oxidised?
 - (A) $Br_2 + H_2 S \rightarrow 2HBr + S$
 - (B) $2\,\mathrm{HgCl}_2 + \mathrm{SnCl}_2
 ightarrow \mathrm{Hg}_2\,\mathrm{Cl}_2 + \mathrm{SnCl}_4$
 - (C) $\operatorname{Cl}_2 + 2KI \rightarrow 2\operatorname{KCl} + \operatorname{I}_2$
 - (D) $2Cu^{2+} + 4\mathrm{I}^- o \mathrm{Cu}_2\,\mathrm{I}_2 + \mathrm{I}_2$
- **Q12** M^{3+} ion loses $3e^-$. Its oxidation number will be:
 - (A) 0

- (B) + 3
- (C) + 6
- (D) -3
- Q13 Oxidation can be defined as the terms:
 - (I) gain of electron and hydrogen
 - (II) gain of oxygen and loss of electron
 - (III) increase in oxidation number
 - (IV) decrease in oxidation number Select the correct terms:
 - (A) I and II
- (B) I and IV
- (C) I and III
- (D) II and III
- Q14 Given the equation:

$$2\mathrm{Cr}(s) + 3 \ \mathrm{Pb}^{2+}(aq) \longrightarrow 2\mathrm{Cr}^{3+}(aq) + 3 \ \mathrm{Pb}(s)$$

which is the correct reduction half reaction?

- (A) $\operatorname{Cr}(s) \longrightarrow \operatorname{Cr}^{3+}(aq) + 3e^{-}$
- (B) $\operatorname{Cr}(s) + 3e^- \longrightarrow \operatorname{Cr}^{3+}(aq)$
- (C) $\operatorname{Pb}^{2+}(aq) \longrightarrow \operatorname{Pb}(s) + 2e^{-}$
- (D) $\operatorname{Pb}^{2+}(aq) + 2e^{-} \longrightarrow \operatorname{Pb}(s)$
- Q15

- In $Cu^{2+} + Ag \rightarrow Cu + Ag^+$, oxidation halfreaction is:
- (A) $\mathrm{Cu}^{2+} o \mathrm{Cu}$ (B) $\mathrm{Ag} o \mathrm{Ag}^+$
- (C) $\mathrm{Cu} o \mathrm{Cu}^{2+}$
- (D) All of these
- **Q16** In the reaction ${
 m MnO_4^-} + {
 m SO_3^{2-}} + {
 m H^+}
 ightarrow$ $SO_4^{2-} + Mn^{2+} + H_2O$
 - (A) MnO_4^- and H^+ both are reduced
 - (B) MnO_4^- is reduced and H^+ is oxidized
 - (C) MnO_4^- is reduced and SO_3^{2-} is oxidized
 - (D) MnO_4^- is oxidized SO_3^{2-} is reduced
- Q17 If an element is in its lowest oxidation state under proper conditions, it can act as:
 - (A) A Reducing agent
 - (B) An oxidizing agent
 - (C) Oxidizing as well as reducing agent
 - (D) Neither oxidizing nor reducing agent
- **Q18** The reaction H_2 $S + H_2O_2 \rightarrow S + 2H_2O$ manifests
 - (A) Oxidizing action of H_2O_2
 - (B) Reducing nature of H_2O_2
 - (C) Acidic nature of H_2O_2
 - (D) Alkaline nature of H_2O_2
- In a reaction of H_2O (steam) +C (glowing) Q19 $\longrightarrow CO + H_2$
 - (A) H_2O is the reducing agent
 - (B) H_2O is the oxidising agent
 - (C) Carbon is the oxidising agent
 - (D) Oxidation-reduction does not occur
- **Q20** The reaction between iodide and hydrogen peroxide takes place in the acidic medium. The role of hydrogen peroxide is to
 - (A) Oxidize iodide to molecular iodine
 - (B) Oxidize iodide to atomic iodine
 - (C) Reduce iodide to molecular iodine
 - (D) Reduce iodide to atomic iodine

Answer Key

Q1	(A)	Q11	(C)
Q2	(C)	Q12	(C)
Q3	(D)	Q13	(D)
Q4	(B)	Q14	(D)
Q5	(C)	Q15	(B)
Q6	(B)	Q16	(C)
Q7	(D)	Q17	(A)
Q8	(B)	Q18	(A)
Q9	(A)	Q19	(B)
Q10	(C)	Q20	(A)



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