Q NO	CHAPTER	QUESTION	ANSWER	EXPLANATION
1	REDOX REACTION	The oxidation number of Cr in $Cr(CO)_6$ is —————	ZERO	Cr is exhibiting 0 Oxidation State as CO (Carbon Monoxide) is with Zero Charge. CO is a neutral ligand whose charge is zero. In $Cr(CO)_6$ complex, oxidation number of Cr is zero.
2	REDOX REACTION	Which of the following is not a redox reaction? $CaCO_3 \rightarrow CaO + CO_2$ $O_2 + 2H_2 \rightarrow 2H_2O$ $Na + H_2O \rightarrow NaOH + 1/2H_2$ $MnCl_3 \rightarrow MnCl_2 + 1/2\ Cl_2$	Option - I	Solution: $CaCO_3 \rightarrow CaO + CO_2$ This is not a redox reaction because no element undergoes a change in oxidation number.
3	REDOX REACTION	In the reaction $3Br_2 + 6CO_3^{2-} + 3H_2O \rightarrow 5Br^- + BrO_3^- + 6HCO_3^-$	Bromine is both reduced and oxidised.	Solution: In this reaction, Br_2 undergoes both decrease as well as increase in an oxidation number, it is both reduced and oxidised.
4	REDOX REACTION	Assertion: In a reaction $Zn(s) + CuSO_4\ (aq) \rightarrow ZnSO_4(aq) + Cu(s)$ Zn is a reductant but itself get oxidized. Reason: In a redox reaction, oxidant is reduced by accepting electrons and reductant is oxidized by losing	Both Reason and Assertion are correct	

		electrons.		
5	REDOX REACTION	Assertion: HClO4 is a stronger acid than HClO3. Reason: Oxidation state of Cl in HClO4 is +VII and in HClO3 +V.	Both are True but NOT correct explanation	
6	REDOX REACTION	Assertion: In the reaction 2Na(s) + Cl2(g) → 2NaCl(s) sodium is oxidised. Reason: Sodium acts as an oxidising agent in given reaction.	Assertion is False But Reason is True	
7	REDOX REACTION	Assertion: The reaction: CaCO3(s) → CaO(s) + CO2 (g) is an example of decomposition reaction. Reason: Above reaction is not a redox reaction.	Both are correct but NOT correct Explanation	As the reaction is not a redox reaction is other assumption
8	REDOX REACTION	Oxidation number of P in PO43-, of S in SO42- and that of Cr in Cr2O72- are respectively:	+5, +6 and +6	Solution: PO_4^{3-} : $x + 4(-2) = -3 \Rightarrow x = +5$ SO_4^{2-} : $x + 4(-2) = -2 \Rightarrow x = +6$ $Cr_2O_7^{2-}$: $2x + 7(-2) = -2 \Rightarrow x = +6$
9	REDOX REACTION	9. The oxidation number of Cr in K2Cr2O7 is:	+ 6	Solution: In the K2Cr2O7 complex, let the oxidation number of Cr be x. Then $2(+1) + 2(x) + 7(-2) = 0 \Rightarrow 2x = +12 \Rightarrow x = +6$

| 10 | **REDOX REACTION** | Consider the following reaction:

 Zn + Cu2+ → Zn2+ + Cu

 With reference to the above, which one of the following is the correct statement? | **Zn is oxidised to Zn2+ ions.** | **Solution:** Zn is oxidised to Zn2+ ions by releasing electrons. |