

96.(A) $\text{CrO}_2\text{Cl}_2 \rightarrow x + 2(-2) + 2(-1) = 0$

$\Rightarrow x = +6$

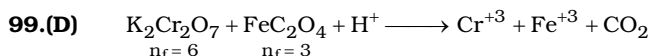
$\text{MnO}_4^- \rightarrow x - 8 = -1$

$x = +7$

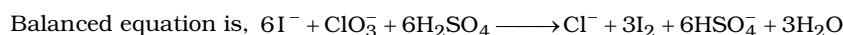
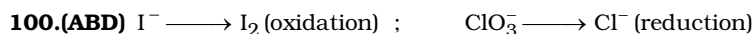
97.(C) Mn is in maximum O.S. of +7 in KMnO_4 .

\therefore It cannot be oxidised further

98.(A) O.S. of both Fe & Co is +3.



The number of moles of ferrous oxalate required per mole of dichromate will be 2.



101.(B) Meq. of $\text{NaBrO}_3 = 85.5 \times 0.672 = 57.456$

Let weight of $\text{NaBrO}_3 = W$

$\therefore \frac{W}{M_{\text{NaBrO}_3}} \times 6 \times 1000 = 57.456$ (equivalent weight = $M/6$) of n-factor = 6

$\therefore \frac{M}{151} \times 6 \times 1000 = 57.456 \quad \therefore W = 1.45 \text{ gm}$

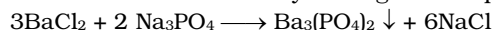
Hence, **(B)** is the correct answer.

102.(D) Eq. of $\text{NaHSO}_3 = \text{Eq. of NaIO}_3$

$\therefore \frac{W_{\text{NaHSO}_3}}{M_{\text{NaHSO}_3}} \times 2 = \frac{0.58}{198} \times 6$ (n-factor of $\text{NaHSO}_3 = 2$; $\text{NaIO}_3 = 6$)

$\Rightarrow W_{\text{NaHSO}_3} = 0.91\text{g}$

103.(D) Let us first solve this Problem by writing the complete balanced reaction.



We can see that the moles of BaCl_2 used are $\frac{3}{2}$ times the moles of Na_3PO_4 . Therefore, to react with 0.2

mol of Na_3PO_4 , the moles of BaCl_2 required would be $0.2 \times \frac{3}{2} = 0.3$. Since BaCl_2 is 0.5 mol, we can

conclude that Na_3PO_4 is the limiting reagent. Therefore, moles of $\text{Ba}_3(\text{PO}_4)_2$ formed is $0.2 \times \frac{1}{2} = 0.1 \text{ mol}$.

104.(B) Meq. of Acid = Meq. of NaOH

$\frac{0.52}{E} \times 1000 = 100 \times 0.1 \quad \therefore E = 52$

105.(A) 34 g H_2O_2 in 1.12 L solution

$\Rightarrow 1 \text{ mole } \text{H}_2\text{O}_2 \text{ in } 1.12 \text{ L solution} \Rightarrow \frac{1}{1.2} \text{ mole in } 1 \text{ L solution}$

$n_{\text{O}_2} = \frac{1}{2.24} \text{ mole} = \frac{V_{\text{O}_2}}{22.4} \Rightarrow V_{\text{O}_2} = 10$