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Ques Find no. of moles of $KMnO_4$ required to oxidise 2 mol KI in basic medium.

$MnO_4^- \longrightarrow MnO_4^{2-}$ in basic medium n-factor = 1

$\overset{+1}{K}\overset{-1}{I} \longrightarrow \overset{+1}{I}O^-$ n-factor = 2

$-2e$

$n \times 1 = 2 \times 2$

$n = 4$

no. of g.eq of $KMnO_4$ = g. eq. of KI

$n \times n$-factor = n-factor

$n \times 1 = 2 \times 2$

$n = 4$ mol

Ques Find no. of moles of Barium Permagnate required to oxidise 2 mol of oxalate ion. (acidic)

$Ba(MnO_4)_2 \longrightarrow Mn^{2+}$ n-factor = 5

$\overset{+3}{C_2}O_4^{2-} \longrightarrow 2\overset{+4}{C}O_2$ n-factor = 2

$-1e^- \times 2$

$= 2$

g. eq. of $Ba(MnO_4)_2$ = g. eq. of $C_2O_4^{2-}$

n × n factor = n × n – factor

$n \times 5 = 2 \times 2$

$n = \frac{4}{5}$

Ques In the reaction $X + Y \rightarrow XY$ 10 g eq. of oxidant X require 5 g. eq. of Y to give 100ml XY Find Normality of XY

L.R. = Y

$$\text{Normality } xy = \frac{\text{no. of g. eq.}}{\text{Vol (L)}}$$

$$= \frac{5}{\frac{1000}{1000}} = 50\,N$$

Ques Find wt. of MnO_2 reduced by 25ml 0.16N oxalic acid.

$\overset{+4}{Mn}O_2 \longrightarrow Mn^{2+}$ n factor = 2

$H_2C_2O_4 \longrightarrow 2\overset{+4}{C}O_2$ n factor = 2

(1C × 2)

g. eq. of MnO_2 = g. eq. of $H_2C_2O_4$

$$\frac{W}{Mt} \times n\text{-factor} = N \times V$$

$$W = \frac{0.16^{8}}{2} \times \frac{25}{1000} \times \frac{}{1000} \times \frac{}{10_5}$$

$$= \frac{1}{500} \times \quad = 0.1$$